4690 OS

Messages Guide

Version 6 Release 3

G362-0573-01

4690 OS

Messages Guide

Version 6 Release 3

G362-0573-01

Note
Before using this information and the product it supports, be sure to read the general information under “Notices” on page xi.

May 2012

This edition applies to Version 6 Release 3 of the licensed program IBM 4690 Operating System (program number 5639-P70) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Preface

This guide is the starting place for ***software*** problem determination in the IBM 4690 OS Version 6 (hereafter referred to as the *operating system*). Problems in the operating system are indicated by *system messages*, and audible or visible symptoms. These indications can be displayed at the store controller or at the IBM point-of-sale (POS) terminals. The *system messages* are described in this guide.

Who should use this guide

This guide is written for use by store personnel, store management, the store problem coordinator, the store programmer and system service personnel.

How to use this guide

When using this guide, you should go to Chapter 1, “Start here,” on page 1 and select the item that best describes the action you want to do.

The primary approach to problem resolution should be through the use of system messages, but the information on page 1 will also aid you in resolving special situations.

Terminal models

The 4693-*xx*1/4694, and SurePOS™ 700 Series terminals are called *Mod1* terminals. Although all are called Mod1 terminals, each terminal model supports some features that other models do not support. Additionally, SurePOS 700 Series terminal provide USB capabilities.

The 4693-*xx*2 terminals are called Mod2 terminals. These terminals attach to a Mod1 terminal and depend upon that Mod1 terminal for control and communication with the store controller.

Note: 4683 terminals are not supprted on 4690 OS V6R3. References to 4683 terminals only apply to previous versions of the OS.

The controller/terminal (for example, a 4693-5*x*1 controller/terminal) combines the function of the store controller and point-of-sale terminal in a single product. The terminal portion of a controller/terminal is considered to be a Mod1 terminal.

Note: The 4694 and SurePOS 700 Series systems (except models Cxx) are valid as controller/terminals. The 4693 systems are only supported as a controller in a non-Java™ environment or as an alternate in a Java environment.

The 4690 V6R3 introduced support for the IBM SurePOS 300 Series Model 350 terminal (4810-350). This is a *Mod1* terminal. The 4810-350 has the following characteristics:

- It can only be used as a terminal in Enhanced Mode
- It cannot be used as a store controller
- The RS232 Sureport card is not supported by 4690 OS
- Aside from a single port for the cash drawer, there are no RS485 ports available

Store Loop

Store Loop is no longer supported as of 4690 OS V6R3. References to Store Loop in 4690 publications are only applicable to prior releases.

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Where to find more information

Current versions of Retail Store Solutions documentation are available on the IBM Retail Store Solutions Web site at: www.ibm.com/solutions/retail/store/support. Click **Publications**.

Store System related publications – software

Note: References to related 4690 publications in this guide are references to the publications in the IBM 4690 V6 library. For example, the *IBM 4690 OS Version 6: Messages Guide* is referred to as the *IBM 4690 OS: Messages Guide*.

IBM 4690 V6 library

IBM 4690 OS Version 6: Planning, Installation, and Configuration Guide, G362-0541
IBM 4690 OS Version 6: User's Guide, G362-0542
IBM 4690 OS Version 6: Messages Guide, G362-0543
IBM 4690 OS Version 6: Communications Programming Reference, G362-0544
IBM 4690 OS Version 6: Programming Guide, G362-0545
IBM 4690 OS Version 6: Master Index, G362-0546
IBM 4680 BASIC: Language Reference, SC30-3356

IBM 4690 V5 library

IBM 4690 OS Version 5: Planning, Installation, and Configuration Guide, GC30-4133
IBM 4690 OS Version 5: Programming Guide, SC30-4137
IBM 4690 OS Version 5: User's Guide, SC30-4134
IBM 4690 OS Version 5: Communications Programming Reference, SC30-4136
IBM 4690 OS Version 5: Messages Guide, SC30-4135
IBM 4680 BASIC: Language Reference, SC30-3356

IBM 4690 V4 library

IBM 4690 OS Version 4: Planning, Installation, and Configuration Guide, GC30-4051
IBM 4690 OS Version 4: Programming Guide, SC30-4054
IBM 4690 OS Version 4: User's Guide, SC30-4050
IBM 4690 OS Version 4: Communications Programming Reference, SC30-4053
IBM 4690 OS Version 4: Messages Guide, SC30-4052
IBM 4680 BASIC: Language Reference, SC30-3356

IBM 4690 OS V3 library

IBM 4690 OS Version 3: Planning, Installation, and Configuration Guide, GC30-4045
IBM 4690 OS Version 3: Programming Guide, SC30-4048
IBM 4690 OS Version 3: User's Guide, SC30-4044
IBM 4690 OS Version 3: Communications Programming Reference, SC30-4047
IBM 4690 OS Version 3: Messages Guide, SC30-4046
IBM 4680 BASIC: Language Reference, SC30-3356

IBM 4690 OS V2 library

IBM 4690 OS Version 2: Planning, Installation, and Configuration Guide, GC30-3984
IBM 4690 OS Version 2: Programming Guide, SC30-3987
IBM 4690 OS Version 2: User's Guide, SC30-3983
IBM 4690 OS Version 2: Communications Programming Reference, SC30-3986
IBM 4690 OS Version 2: Messages Guide, SC30-3985
IBM 4680 BASIC: Language Reference, SC30-3356
IBM 4680 Store System: Display Manager User's Guide, SC30-3404

IBM 4680 and 4680-90 General Sales Application

IBM 4680-90 General Sales Application: Planning and Installation Guide, GC30-3630
IBM 4680-90 General Sales Application: Guide to Operations, SC30-3632
IBM 4680-90 General Sales Application: Programming Guide, SC30-3631

IBM 4680 General Sales Application – Price Management Feature: User's Guide, SC30-3461
IBM 4680 General Sales Application – Terminal Offline Feature: User's Guide, SC30-3499
IBM 4680-90 General Sales Application: Full Screen – Guide to Operations, SC30-3664
IBM 4680-90 General Sales Application: Master Index, GX27-3958

IBM 4680 and 4680-90 Supermarket Application

IBM 4680-90 Supermarket Application: Planning and Installation Guide, GC30-3633
IBM 4680-90 Supermarket Application: Guide to Operations, SC30-3635
IBM 4680-90 Supermarket Application: Programming Guide, SC30-3634
IBM 4680 Supermarket Application – Terminal Offline Feature: User's Guide, SC30-3512
IBM 4680 Supermarket Application – Electronic Funds Transfer Feature: User's Guide, SC30-3513
IBM 4680-4690 Supermarket Application – Electronic Funds Transfer Feature Enhancement: User's Guide, SC30-3718
IBM 4680-90 Supermarket Application: Master Index, GX27-3957

IBM SurePOS Application Client/Server Environment for 4690 OS

These manuals, which are available on the Retail Store Solutions Web site (http://www.ibm.com/solutions/retail/store/support), contain information about IBM SurePOS Application Client/Server Environment (ACE) for 4690 OS:

- *IBM SurePOS Application Client/Server Environment for 4690 OS: Planning and Installation Guide*, G362-0548
- *IBM SurePOS Application Client/Server Environment for 4690 OS: Guide to Operations*, G362-0549
- *IBM SurePOS Application Client/Server Environment for 4690 OS: Programming Reference*, G362-0550
- *IBM SurePOS Application Client/Server Environment for 4690 OS: User's Guide*, G362-0551
- *IBM SurePOS Application Client/Server Environment for 4690 OS: Master Index*, G362-0552

If you install the Store Integrator graphical user interface (GUI), the following publication, which is available on the Retail Store Solutions Web site (http://www.ibm.com/solutions/retail/store/support), is useful:

- *IBM 4690 Store Integrator Graphical User Interface: Installation, Configuration, and Programming Guide*

This manual, which is available on the Retail Store Solutions Web site (http://www.ibm.com/solutions/retail/store/support), describes how to use the Data Integration Facility, a related software product:

- *Data Integration Facility: User's Guide*, GC30-4077

IBM 4680 Chain Drug Sales Application

IBM 4680 Chain Drug Sales Application: Planning and Installation Guide, GC30-3412
IBM 4680 Chain Drug Sales Application: Guide to Operations, SC30-3413
IBM 4680 Chain Drug Sales Application: Programming Guide, SC30-3414

IBM systems application architecture

IBM Systems Application Architecture: Common Programming Interface Communications Reference, SC26-4399

In-store processing

In-Store Processing: Application Development Guide, SC30-3534
In-Store Processing: IBM AIX – Application Development Guide, SC30-3537
In-Store Processing: IBM OS/2 Extended Edition – Application Development Guide, SC30-3538
In-Store Processing: IBM OS/400 – Application Development Guide, SC30-3535
In-Store Processing: IBM 4680 OS – Application Development Guide, SC30-3536

Store System related publications – hardware

IBM SurePOS 300 Series Point-of-Sale Terminals

For the latest information on IBM SurePOS 300 Series publications, see the IBM Retail Store Solutions Website at www.ibm.com/solutions/retail/store/support.

IBM SurePOS 700 Series Point-of-Sale terminals

IBM SurePOS 700 Series Point-of-Sale: Installation and Operation Guide, GA27–4223
IBM SurePOS 700 Series Point-of-Sale: Hardware Service Manual, GY27–0363
IBM SurePOS 700 Series Point-of Sale: System Reference, SA27–4224
IBM SurePOS 700 Series Point-of-Sale: Options and I/O Service Guide, SY27–0392
IBM SurePOS 720, 740 and 780 Series Point-of-Sale: Planning, Installation and Operation Guide, GA27–4328
IBM SurePOS 720, 740 and 780 Series Point-of-Sale: Hardware Service Guide, SA27–4329

IBM 4694 Point-of-Sale terminals

IBM 4694 Point-of-Sale Terminals: Installation and Operation Guide, SA27-4005
IBM Store Systems: Installation and Operation for Point-of-Sale Input/Output Devices, GA27-4028
IBM 4693, 4694, and 4695 Point-of-Sale Terminals: Hardware Service Manual, SY27-0337
IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices, SY27-0339
IBM Store Systems: Parts Catalog, S131-0097

IBM 4693 Point-of-Sale terminals

IBM 4693 Point-of-Sale Terminals: Installation and Operation Guide, SA27-3978
IBM Store Systems: Installation and Operation for Point-of-Sale Input/Output Devices, GA27-4028
IBM 4693 Point-of-Sale Terminals: Setup Instructions, P/N 73G1012
IBM 4693 Point-of-Sale Terminals: Quick Reference Card, P/N 73G1022
IBM 4693, 4694, and 4695 Point-of-Sale Terminals: Maintenance and Test Summary, SX27-3919
IBM 4693, 4694, and 4695 Point-of-Sale Terminals: Hardware Service Manual, SY27-0337
IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices, SY27-0339
IBM Store Systems: Parts Catalog, S131-0097
IBM 4693 Point-of-Sale Terminals: Reference Diskette, SX27-3918
IBM 4693 Point-of-Sale Terminals: Diagnostic Diskette, SX27-3928
IBM 4693 Point-of-Sale Terminals: Support Diskette for Medialess Terminals, SX27-3929

IBM 4683 Point-of-Sale terminals

IBM 4683 Point-of-Sale Terminal: Installation Guide, SA27-3783
IBM 4683/4684 Point-of-Sale Terminal: Operations Guide, SA27-3704
IBM 4680 Store System and IBM 4683/4684 Point-of-Sale Terminal: Problem Determination Guide, SY27-0330
IBM 4680 Store System: Terminal Test Procedures Reference Summary, GX27-3779
IBM 4683/4684 Point-of-Sale Terminal: Maintenance Manual, SY27-0295
IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices, SY27-0339
IBM Store Systems: Hardware Technical Reference, SY27-0336
IBM Store Systems: Parts Catalog, S131-0097

Scanners

IBM 1520 Hand-Held Scanner User's Guide, GA27-3685
IBM 4686 Retail Point-of-Sale Scanner: Physical Planning, Installation, and Operation Guide, SA27-3854
IBM 4686 Retail Point-of-Sale Scanner: Maintenance Manual, SY27-0319
IBM 4687 Point-of-Sale Scanner Model 1: Physical Planning, Installation, and Operation Guide, SA27-3855
IBM 4687 Point-of-Sale Scanner Model 1: Maintenance Manual, SY27-0317
IBM 4687 Point-of-Sale Scanner Model 2: Physical Planning Guide, SA27-3882
IBM 4687 Point-of-Sale Scanner Model 2: Operator's Guide, SA27-3884
IBM 4687 Point-of-Sale Scanner Model 2: Maintenance Manual, SY27-0324
IBM 4696 Point-of-Sale Scanner Scale: Physical Planning, Installation, and Operation Guide, GA27-3965
IBM 4696 Point-of-Sale Scanner Scale: Maintenance Manual, SY27-0333
IBM 4696 Point-of-Sale Scanner Scale: Specification Sheet, G221-3361
IBM 4697 Point-of-Sale Scanner Model 001: Maintenance Manual, SY27-0338

IBM 4697 Point-of-Sale Scanner Model 001: Physical Planning, Installation, and Operations Guide, SY27-3990

Cabling

A Building Planning Guide for Communication Wiring, G320-8059
IBM Cabling System Planning and Installation Guide, GA27-3361
IBM Cabling System Catalog, G570-2040
Using the IBM Cabling System with Communication Products, GA27-3620

Networks

IBM Local Area Network Support Program, IBM P/N 83X7873
IBM Token-Ring Network Introduction and Planning Guide, GA27-3677
IBM Personal System/2 Store Loop Adapter/A: Installation and Setup Instructions, SK2T-0318

General publications

Advanced Data Communications for Stores – General Information, GH20-2188
Distributed Systems Executive – General Information, GH19-6394
Communications Manager X.25 Programming Guide, SC31-6167
IBM Proprinters, SC31-3793
IBM 4680 Support for COBOL Version 2 (Softcopy provided with the product)
IBM 4680 Store System Regression Tester (Softcopy provided with the product)
IBM 4680 X.25 Application Programming Interface, GG24-3952
NetView Distribution Manager: General Information, GH19-6587
Systems Network Architecture: General Overview, GC30-3073
IBM Local Area Network Administrator's Guide, GA27-6367
DSX Preparing and Tracking Transmission Plans, SH19-6399
IBM Dictionary of Computing (New York; McGraw-Hill, Inc., 1993)
DSX Preparing and Tracking Transmission Plans, SH19-6399
IBM Local Area Network Support Program, IBM P/N 83X7873
The Ethernet Management Guide – Keeping the Link, Second Edition (McGraw-Hill, Inc., ISBN 0-07-046320-4)
Remote Management Agent User's Guide, GC30-4106

Publications accessibility

The softcopy version of this guide and other related publications are accessibility enabled.

Notice statements

Notices in this guide are defined as follows:

Notes These notices provide important tips, guidance, or advice.

Important These notices provide information or advice that might help you avoid inconvenient or problem situations.

Attention These notices indicate potential damage to programs, devices, or data. An attention notice is placed just before the instruction or situation in which damage could occur.

CAUTION These statements indicate situations that can be potentially hazardous to you. A caution statement is placed just before the description of a potentially hazardous procedure step or situation.

DANGER These statements indicate situations that can be potentially lethal or extremely hazardous to you. A danger statement is placed just before the description of a potentially lethal or extremely hazardous procedure step or situation.

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Chapter 1. Start here

Use this chapter as a starting point in problem resolution.

Messages

Table 1 on page 1 lists the error messages mentioned in this guide and corresponding pages or guides where you can find more information on the messages.

Table 1. Error Messages

Message	Refer to
A*nnn*	*IBM 4680 General Sales Application: Guide to Operations* or *IBM 4680-4690 General Sales Application: Guide to Operations*
B*nnn*	*IBM 4680 Supermarket Application: Guide to Operations* or *IBM 4680-4690 Supermarket Application: Guide to Operations*
C*nnn*	*IBM 4680 Chain Drug Sales Application: Guide to Operations*
F*nnn*–R*xxx*	Reserved for future applications
T*nnn*	Page 10
U*nnn*	Page 33
W*nnn*	Page 41
Y*nnn*	Page 183
Z*nnn*	Page 186
ERRN	Page 275
HCP Error/Sense Code	Page 352

Hang Conditions

Table 2 on page 1 shows common hang conditions and the corresponding pages where you can find more information.

Table 2. Hang Conditions

Condition	Refer to
Store Controller Application (Microsoft® Windows®) Suspend	Page 3
Store Controller Operating System (OS) Suspend	Page 3
Store Controller Hardware Suspend	Page 4
Store Controller Background Application Suspend	Page 5
Store Controller Communications Suspend	Page 5
Terminal Application Suspend	Page 6
Terminal Hardware Suspend	Page 7

Store Controller and Terminal Dump

See “Store Controller and Terminal Dump” on page 7 for information and analysis of a store controller or terminal dump, reasons for a dump, and what data to collect before a dump occurs.

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Incorrect Output

See “Incorrect Output” on page 8 for information on errors that occur when the application or system results differ from what they should be.

User Tasks

Table 3 on page 2 lists the user tasks and the corresponding pages or guides where you can find more information.

Table 3. User Tasks

Task	Refer to
Apply maintenance to system software	*IBM 4690 OS: Planning, Installation, and Configuration Guide*
Correct a file or perform file recovery	*IBM 4690 OS: User's Guide*
Create a problem analysis diskette	Page 368
Determine hardware problems	See your hardware service documentation
Display a message at the store controller	Page 416
Display a message at the terminal	Page 430
Display terminal configuration	Page 428
Look up a hardware symptom	See your hardware service documentation
Look up system log data	Page 197
Look up a return code (ERRN)	Page 275
Look up a communications or HCP error sense code	Page 349
Recover from a power line disturbance (PLD) using the Supplemental Diskette or the Supplemental option using the CD-ROM	Page 440
Remove or replace a point-of-sale terminal device	See your hardware service documentation
Request performance data	Page 378
Request a store controller storage dump	Page 359
Request a terminal storage dump	Page 361
Request a storage dump report	Page 363
Request a system log report	Page 365
Request a system trace	Page 372
Request store controller status	Page 383
Reset the terminal number	Page 434
Verify the level of software modules	Page 386

Problem Resolution

The following pages include instructions for both collecting data about the problem and recovering from the problem. The following are some guidelines for problem resolution:

- In some cases, collecting problem data also forces a recovery. For example, forcing a dump also resets the system. In this case, the steps for collecting data and those for problem recovery are the same.
- At times a quick recovery is more important than a long-term solution; in these situations you might decide to follow only the recovery instructions and not collect problem data. However, in some circumstances you might need to spend extra time collecting and reporting problem data.

- If a problem is to be reported, you must always gather the following information:
  - A complete problem description, including all messages received
  - A list of all terminals and controllers affected
  - The sequence of events leading up to the problem
  - Whether you can reproduce the problem

  "Problem data collection form" on page 390 contains a form that organizes this information.

Store Controller Application (Window) Suspend

This section describes the symptoms of a store controller application suspend and the procedures for correcting the problem.

These symptoms exist:
- Nothing is happening on the store controller panel.
- You can change windows by pressing **Alt+Sysreq+N** (next) or **Alt+Sysreq+P** (previous).
- No other keys work.
- There are no new messages in the system message file that apply.

Collect the following data:
- What application was running when the suspend occurred?
- What was the keying sequence that led to the problem?
- How widespread is the problem? Does it occur on every store controller?
- Has this problem happened before?
- Run the fixed disk trace for five minutes before stopping it and recording it on a problem analysis diskette (see "Requesting a system trace" on page 372 for instructions on performing and recording a trace).
- Initiate a store controller dump and record the formatted dump data on a problem analysis diskette (see "Requesting a storage dump report" on page 363 for instructions on recording dump data).

How to recover:
1. If you see LOCK commands after formatting the fixed disk trace, dump all controllers to temporarily recover the window, and reset the whole system.
2. To cancel the window if you did not dump:
   a. Press the **Alt+Sysreq** keys and then key in **W**.
   b. Position the cursor over the stalled application and press **F8** (Stop).
3. If the system is recovered from the condition, you can restart the application.

Report the problem to the next level of support, and supply the following information:
- That this appears to be a store controller application suspend
- The formatted dump data
- If you were able to cancel the window
- Where in the program the store controller stalled (panel number and expected output)
- The keying sequence that led to the problem
- How many store controllers in the system experienced the problem
- Whether the system was changed recently

Store Controller Operating System Suspend

This section describes the symptoms of a store controller operating system suspend and the procedures for correcting the problem.

These symptoms exist:
- The store controller keyboard, including the Alt and Sysreq keys, does not respond.
- Pressing **Ctrl+Alt+Del** does not force an initial program load (IPL).
- The dump button works successfully, so a dump is available.

Start here

Collect the following data:
- Which application was running when the suspend occurred?
- What was the keying sequence that led to the problem?
- How many store controllers are affected?
- If more than one store controller is affected, do they suspend at the same point in the program?
- Initiate a store controller dump on each affected store controller and record the formatted dump data on a problem analysis diskette (see page 363 for instructions on recording dump data).
- Has this problem occurred before?

How to recover:
1. If the dump occurs and the IPL is complete, the store controller has recovered.
2. If it does not recover, indicate so when you report the problem.

Report the problem to the next level of support, and supply the following information:
- That this appears to be a store controller operating system suspend
- The application running when the suspend occurred
- That the store controller keyboard was inoperative
- That dumps were forced using the dump button
- The formatted dump data
- The key sequences and events leading up to the suspend, and whether it can be reproduced
- The condition of the other store controllers in the LAN
- Whether the system was changed recently

Store Controller Hardware Suspend

This section describes the symptoms of a store controller hardware suspend and the procedures for correcting the problem.

These symptoms exist:
- The store controller keyboard, including the Alt and Sysreq keys, does not work.
- Pressing **Ctrl+Alt+Del** does not force an IPL.
- The dump button does not work.
- There is no file activity.

Collect the following data:
- Can you IPL by powering off and on the store controller?
- If the store controller does not IPL, record the last W555 message displayed before IPL stopped.
- Has this problem occurred before?
- You should see a W754 error message in the system message file from just before the time of the suspend. Record the details associated with this message and report the problem to the next level of support.

How to recover:

To recover, power the store controller Off and On to cause an IPL.

Report the problem to the next level of support, and supply the following information:
- That this appears to be a store controller hardware problem
- Whether recovery (IPL) was possible
- How often this problem has occurred
- Whether the system was changed recently
- The details of the W754 message
- The last W555 message displayed if the controller does not IPL

Store Controller Background Application Suspend

This section describes the symptoms of a store controller background application suspend and the procedures for correcting the problem.

These symptoms exist:
- Expected completion of a background application does not occur.
- Pressing the Alt and Sysreq keys and then keying in M works, but no pertinent messages exist in the system message file.
- The keyboard operation is normal, but the background program should have completed.

Collect the following data:
- How many store controllers are affected?
- Perform a file trace, letting the trace run for five minutes before stopping it and recording it on a problem analysis diskette (see page “Requesting a system trace” on page 372 for instructions on performing and recording traces).
- Check the system message file for pertinent messages.
- Has this problem occurred before?
- Initiate a store controller dump and record the formatted dump data on a problem analysis diskette (see page “Requesting a storage dump report” on page 363 for instructions on recording dump data).

How to recover:

1. Go to the background application control panel by pressing the **Alt** and **Sysreq** keys and then key in **B**.
2. Cancel the stalled background application by pressing **F8** (Stop) and then restart it by pressing **F7** (Restart).
3. If the program starts and completes, check the system message file for pertinent messages.

Report the problem to the next level of support, and supply the following information:
- That this appears to be a store controller background application program suspend
- Any applicable messages
- Whether other store controllers are also affected
- Whether the system was changed recently
- The dump analysis diskette, if available
- The controller file trace

Store Controller Communications Suspend

This section describes the symptoms of a store controller communications suspend and the procedures for correcting the problem.

These symptoms exist:
- Keyboard operation is normal, but the background communications application does not complete.
- Multiple copies of the same communications application are shown as active on the background panels.
- Terminals receive *x*002 (where *x* is dependent on the application), system busy or timeout on credit requests.
- After entering a communications link name on the COMMUNICATIONS CONTROL panel and receiving a `Command in progress` message, a panel update does not occur. Other functions, such as Host Credit, may also be stalled. The keyboard is still functioning and it is possible to go to other panels.

Collect the following data:
- Perform a communications line trace if you are using SDLC or X.25 (see “Requesting a system trace” on page 372 for instructions on performing and recording traces).
- Check the system message file for pertinent messages.
- Has this problem occurred before?

Start here

- Initiate a store controller dump and record the formatted dump data on a problem analysis diskette (see “Requesting a storage dump report” on page 363 for instructions on recording dump data).

How to recover:
1. If a dump was initiated, the controller will IPL and recover.
2. If a dump was not initiated, you must IPL the store controller.

Report the problem to the next level of support, and supply the following information:
- That this appears to be a store controller communications suspend
- Any applicable messages
- The formatted dump data

Terminal Application Suspend

This section describes the symptoms of a terminal application suspend and the procedures for correcting the problem.

These symptoms exist:
- Only a beep sounds when terminal keys are pressed.
- Keying in S1, 3, and S2 does not display messages and the message light is off.

  Note: If *x*002 messages are displayed (where *x* is dependent on the application), analyze the problem using the appropriate application guide to operations guide.

Collect the following data:
- How widespread is the problem:
  - Is only one terminal affected?
  - Is a pair of point-of-sale terminals affected?
  - Are multiple Mod1 terminals affected?
  - Are all terminals using the same application affected?
  - Are all terminals in the store affected?
- Which terminal application was running when the problem occurred?
- What was the keying sequence that led to the problem?
- Has this problem occurred before?
- Initiate terminal and store controller dumps by pressing the respective dump buttons, if available, as soon as possible after the problem occurs.

How to recover:
1. Press the **Alt+Sysreq** keys, key in **C** and then **1** and go to the TERMINAL FUNCTIONS panel.
2. Stop and restart the terminal application.

Report the problem to the next level of support, and supply the following information:
- That this appears to be a terminal application suspend
- The keying sequence that created the problem
- How many terminals are affected
- How often the problem occurs
- Which store controllers the TCC Networks are attached to (for example, are the terminals all attached to the same store controller?)
- Whether the system was changed recently
- The formatted dump data
- The system log file
- The device channel, loop traces or LAN traces if you can repeat the problem (see “Requesting a system trace” on page 372 for instructions on performing and recording a trace). The type of trace you run depends on how the device is attached.

Terminal Hardware Suspend

This section describes the symptoms of a terminal hardware suspend and the procedures for correcting the problem.

These symptoms exist:

- No terminal keys function.
- Keying in S1, 3 and S2 causes nothing to occur.
- No message lights are displayed.
- The terminal dump button does not cause a terminal dump.
- Only one terminal (or pair of terminals) is affected.

Collect the following data:

Has this problem occurred before?

How to recover:

1. Power Off the terminal and then power it On again.
2. Press the dump button and power Off the terminal and then power it On again.
3. Wait for the terminal to reload.
4. After the terminal completes loading, display the system message file at the store controller by pressing the **Alt+Sysreq** keys, key in **M**.
5. Look for a current error message for this terminal and record this message.

Report the problem to the next level of support, and supply the following information:

- That no message was logged
- That the terminal does not IPL and that there is no associated message (if the terminal does not load)
- That this appears to be a terminal hardware problem
- Whether this is a reoccurring problem
- The formatted system message file
- Whether the system was changed recently

Store Controller and Terminal Dump

Attention: A store controller dump may stop store operations. The storage dump will occur and the store controller will IPL.

A dump is a file containing a snapshot of memory. Dumps are used to analyze why problems happen so that they can be fixed. Also, because an IPL follows a dump, it also resets the device it occurs on, often temporarily removing the problem that caused the dump.

The store controller dump file name is ADXCSLCF.DAT on the root directory; the terminal dump file name is ADXCSLTF.DAT on the ADX_SDT1 subdirectory.

Analysis of the dump

The dump analyzer starts automatically whenever a store controller dumps, or a terminal dumps and successfully transfers the dump to the store controller. The output of the dump analyzer will be in the file ADXE*xxy*F.DAT in the ADX_SDT1 subdirectory. The file parameter *xx* is the node ID, and *y* is T for terminal dump and C for store controller dump.

For example, if a terminal attached to store controller DD dumps, the analysis for that dump is stored in ADX_SDT1:ADXEDDTF.DAT. These output files are compound files owned by the master store controller. When the Create Problem Analysis Diskette copies a terminal or store controller dump to the diskettes, the dump analyzer output file is also copied to the diskettes. A symptom string in the dump analyzer output file can be used to determine if the dump is a result of a known problem.

Start here

Dumps can occur for these reasons:
- The user pressed the terminal dump buttons.
- The user requested a dump through the console.
- The user requested a dump at the terminal keyboard keying in S1, 9898, S2.
- The user requested a controller dump from the Enhanced Options Menu.
- A hardware problem exists.
- The operating system kernel detected an exception condition.
- An application detected an exception condition.

What data to collect:

In all cases, whether locally at the store or after being transmitted to the host, you submit a store controller or terminal dump to an IBM Support Center for software assistance as follows:

1. You must print the dump analyzer output file ADXE*xxy*F.DAT in the ADX_SDT1 subdirectory. Report the symptom string to the IBM Support Center to determine if the dump is a result of a known problem. See Appendix B, “Examples of 4690 Store System reports,” on page 393 for identification of the symptom string. The problem resolution may already be contained in a software maintenance corrective diskette. If the problem is known, the dump is not needed.
2. If there are system messages associated with the dump, run the Scan System Log Data and direct the output to a file.
3. If the problem could be a corrupted file or mismatch of maintenance levels, run the Report Module Level and direct the output to a file.
4. Create problem analysis diskettes (see “Creating a problem analysis diskette or data file” on page 368 for instructions on creating the diskettes). If the Scan System Log Data or the Report module Level was run with output directed to a file, select the one that was run along with either the terminal or store controller dump.
5. The dump analyzer output file indicates why the dump occurred. If the dump was initiated by the user, then document a reason why the dump was forced. Include a clear description of what problem created the need for the dump, what happened that lead up to the condition, and how widespread the problem was.
6. Report the level of your software and the configuration of your system.

Incorrect Output

When the result of an application or system is different than it should be, you have incorrect output. You can get an incorrect output error and not get an error message with it.

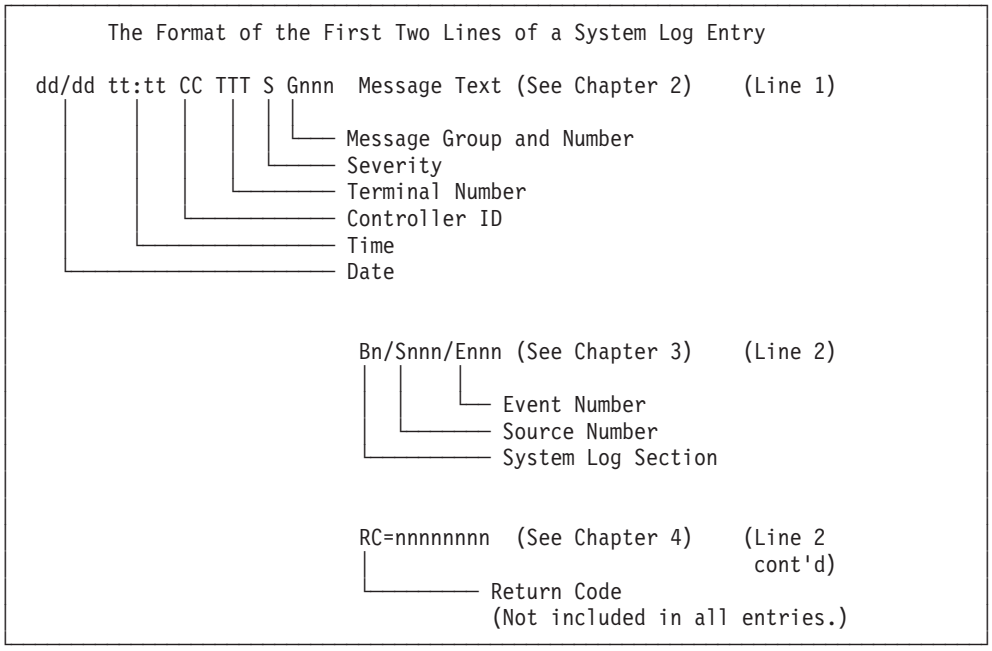
To report the problem, gather the following data:
- panel printouts, journal tapes, and other pertinent data
- What the output should have been
- The level of software you are using and the configuration of your system
- The keying sequence that caused the problem
- If you are able to reproduce the problem
- The events happening when the problem occurred

Always keep records of where your application was developed in case you need to consult the developers for assistance in resolving incorrect output.

Chapter 2. Messages

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A*nnn* through S*nnn* messages 10
T*nnnn* messages 10
U*nnn* messages 33
W*nnn* messages 41
Y*nnn* messages 183
Z*nnn* messages 186

This chapter contains the messages that are displayed or printed at the terminal or the store controller. The messages are listed in alphabetic and numeric order. If you choose to do so, insert your applications' messages after the page marked for that application.



Application program status xxx*

These messages are generated by the application program. In the message:

- The *xxx* can be any characters.
- The asterisk (*) appears at the end of all these messages.

When an *xxx message is displayed:**

1. Look for an OFFLINE or MESSAGE PENDING light on the terminal keyboard.
   - If both lights are off, continue to step 2.
   - If one of these lights is on, perform the following procedure:
     – To display an OFFLINE message, press **S1**, then type **2**, then press **S2**.
     – To display a PENDING message, press **S1**, then type **3**, then press **S2**.
     – Follow the **User Response** for each message in this chapter.
2. Refer to the guide that documents the application program you are running to correct the problem.

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A*nnn* through S*nnn* messages

The messages from the 4690 Store System application programs follow. The messages and the corresponding applications are:

- **A*nnn*:** IBM 4680 or 4680-4690 General Sales Application
- **B*nnn*:** IBM 4680 or 4680-4690 Supermarket Application
- **C*nnn*:** IBM 4680 Chain Drug Sales Application
- **D*nnn*, F*nnn*, G*nnn*,** and **I*nnn* through R*nnn*:** Generated by any other 4690 Store System application program

T*nnnn* messages

Note: T*nnnn* diagnostic messages are not valid on SurePOS 300/700 Series systems.

These messages are generated by the 4690 Store System when the terminal is in Test Mode and tests are running.

Stop the test by typing **0**, then press **S2**.

Exit Test Mode (when T0010 is displayed) by typing **9**, then **9**, then press **S2**.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, S1 and S2 are substituted by other keys: **Esc** = S1 and **Enter** = S2.

T0005 T0005 * TEST MODE * PRESS THE 1 KEY

Explanation: Test Mode is active (IBM 4683 Model A02 Stand-Alone Test Mode).

User response: Press **1** on the keyboard numeric key pad to print a menu of device tests.

T0006 T0006 TERMINAL IN TEST MODE

Explanation: The following menu is printed when **1** is pressed in response to message T0005 (IBM 4683 Model A02 Stand-Alone Test Mode).

```
        ************************************
        T0006 TERMINAL IN TEST MODE

         TESTS AVAILABLE FOR ATTACHED DEVICES

  1  PRINTER TEST
  2  DISPLAY TEST
  3  SCANNER TEST
  4  CASH DRAWER TEST
  5  KEYBOARD TEST
  6  MAGNETIC STRIP READER

        SELECT A TEST BY NUMBER
        ************************************
```

User response: Press a number key (**1** through **6**) to select the test that you want to run.

T0007 T0007 ENTER A TEST NUMBER - 1 THROUGH 6

Explanation: Test Mode is ready to test one of the devices (IBM 4683 Model A02 Stand-Alone Test Mode).

User response: Press a number key (**1** through **6**) to select the test that you want to run.

Each device test, with the exception of the keyboard test, returns to this screen after *one pass* through the test. The keyboard test is stopped by pressing **0**.

T0010 T0010 ENTER TEST REQUEST

Explanation: The point-of-sale terminal is in test mode and it is ready for a test request to be entered at the keyboard.

User response: Key a valid test request number and press **S2** (**Enter**).

To end test mode, type **99** and press **S2**.

T0012 T0012 LOADING TEST..

Explanation: The requested test is being loaded. It can take up to two minutes for the next message to display.

T0013 T0013 ENTER TEST REQUEST AGAIN

Explanation: The test request number that was entered is not valid.

User response: Type a valid test request number and press **S2** (**Enter**).

T0014 T0014 LEAVING TEST MODE PROGRAM LOADING

Explanation: **99 S2** was entered to stop test mode.

The following messages display:

1. Message W008
2. The first message displayed by the default application program. It can take up to two minutes for this message to display.

T0015 T0015 S2 = RUN TESTS 0, S2 = BYPASS TESTS

Explanation: The point-of-sale terminal is ready to start Customer Setup (CSU) testing. The tests can be skipped if they have been run previously.

User response: To start testing, press **S2** (**Enter**).

To bypass testing, type **0** and press **S2**.

T0016 T0016 CSU STARTED, TO CONTINUE, KEY S2

Explanation: Customer Setup (CSU) mode has started.

User response: Press **S2** (**Enter**) to continue.

T0019 T0019 KEYBOARD OR DISPLAY ON 4693-xx2 DOES NOT RESPOND

Explanation: The 4693-xx2 is configured but its mode indicator is off or cable (11) is disconnected.

User response:

- Ensure that the Mod2 has its mode indicator on.
- Ensure that cable 11 is connected to the Mod1 master terminal and to the Mod2 terminal.
- If no problems are found, continue problem determination using the hardware service documentation for your point-of-sale terminal.

T0020 T0020 REQUEST NOT VALID, RETRY

Explanation: A test has received a request from the keyboard that is not valid.

User response: Go to the test procedure for the device you are testing and select a valid request.

T0021 T0021 TEST NOT VALID CHECK CONFIGURATION

Explanation: A valid test request was made but the device to be tested is not configured.

User response: Use the *IBM 4690 OS: Planning, Installation, and Configuration Guide* and the *IBM 4690 OS: User's Guide* to configure the store system. Rerun the test after configuration is complete.

T0030 T0030 VITAL PRODUCT DATA PROBLEM

Explanation: A problem was detected while attempting to read vital product data.

User response: Re-enter the vital product data. See “Entering Vital Product Data for the 4683 or 4693” on page 438.

If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal.

T0040 T0040 TESTS COMPLETE

Explanation: Customer Setup (CSU) testing is complete on this point-of-sale terminal.

User response: Proceed to the next point-of-sale terminal that you want to test.

T0041 T0041 TESTS COMPLETE PROGRAM LOADING...

Explanation: Customer Setup (CSU) testing is complete on this point-of-sale terminal. The default application program is now loading. It can take up to two minutes for the application program to load.

T0050 T0050 RC=*xxxxxxxx* FROM MAIN PROGRAM

Explanation: A problem has been detected within the operating system.

User response: Type **0** and press **S2** (**Enter**) to stop the test, then run the test again.

If the problem persists, report it to the store programmer.

T0098 T0098 FILE OPEN PROBLEM

Explanation: The test program cannot open the message file, ADX_SPGM:ADXTSDMF.DAT.

Possible causes for this message:
- The terminal number was 0 when test mode was requested.

  The terminal number can be 0 if:
  – Totals retention is failing.

    -or-
  – The terminal number has been reset to 0 and a new terminal number has not been entered.
- The file has been deleted.
- A disk hardware problem.

User response:
1. Fill in a copy of the "Problem Data Collection" form. Use primary keyword, MSGT0098.
2. Report this problem to your store programmer and provide the above information.

Programmer response:
1. Copy the ADX_SPGM:ADXTSDMF.DAT file from the appropriate installation diskette or CD-ROM to the ADX_SPGM subdirectory using the COPY utility.

   Attention: The following procedure stops store operations.
2. Switch power Off at the store controller.
   - If a message *was* displayed, find the message in "Store Controller Power-on Self-Test Messages"
   - If a message *was not* displayed, go to the guide, *IBM Guide to Operations - Personal Computer AT* to correct the problem.

T0099 T0099 FILE READ PROBLEM

Explanation: The test program cannot read data from the message file, ADX_SPGM:ADXTSDMF.DAT.

Possible causes for this message:
- File data is bad.
- Disk hardware problem.

User response:

1. Fill in a copy of the "Problem Data Collection" form. Use primary keyword, MSGT0099.
2. Report this problem to your store programmer and provide the above information.

Programmer response:

1. Copy the ADX_SPGM:ADXTSDMF.DAT file from the appropriate installation diskette or CD-ROM to the ADX_SPGM subdirectory using the COPY utility.

   Attention: The following procedure stops store operations.
2. Switch power Off at the store controller.
3. Switch power On and look for power-on self-test messages.
   - If a message *was* displayed, find the message in "Store Controller Power-on Self-Test Messages"
   - If a message *was not* displayed, go to the guide, *IBM Guide to Operations - Personal Computer AT* to correct problem.

T0100 T0100 TESTING TOTALS RETENTION...

Explanation: The totals retention test is running.

T0151 T0151 ERROR, BASE UNIT IS FAILING

Explanation: The totals retention test detected that totals retention is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T0152 T0152 ERROR, BASE UNIT IS FAILING

Explanation: The test detected a totals retention problem.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T0200 T0200 TESTING STORAGE RETENTION

Explanation: The storage retention test is running.

T0201 T0201 REMOVE POWER, THEN RESTORE POWER

Explanation: Ready to test the capability of the Mod1 to retain the storage contents when ac power is removed.

User response: Unplug the Mod1 power cord from the receptacle. Wait 10 seconds and plug the cord back in. Press **S2** (**Enter**) to continue the test.

T0202 T0202 STOR RETENTION IS DISABLED

Explanation: The test has disabled the battery pack. The Mod1 completes a normal IPL (it is powered Off, then powered On).

User response: Press **S2** (**Enter**) to restore storage retention to normal operation.

T0203 T0203 PLEASE WAIT...

Explanation: The storage retention test is running.

User response: Wait for the next message to display.

T0251 T0251 ERROR, BASE UNIT IS FAILING

Explanation: The test could not enable or could not disable the storage retention function.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T1700 T1700 TESTING CHECKOUT SCANNER

Explanation: Testing the point-of-sale scanner. If the scanner is a 3687 Checkout Scanner Model 2, the scanner adapter is also being tested.

T1701 T1701 READ A LABEL WITH SCANNER

Explanation: The test is ready to read a scanner label. The data that is read from the label is formatted and printed at the customer receipt station.

User response: Read a label with the scanner and observe the printing at the customer receipt station to verify that the label was read correctly.

T1702 T1702 READ A LABEL, PRINT UNFORMATTED

Explanation: The test is ready to read a scanner label. The data that is read from the label is printed at the customer receipt station as it is received from the scanner (unformatted).

User response: Read a label with the scanner and observe the printing at the customer receipt station to verify that the label was read correctly.

T1751 T1751 ERROR, REPLACE SCANNER ADAPTER OR REPLACE CABLE 17 OR SCANNER IS FAILING

Explanation: The Point-of-Sale Scanner test detected a failure.

User response: Refer to your scanner scale maintenance manual and follow the problem determination procedures.

T1752 T1752 ERROR, REPLACE SCANNER ADAPTER OR SCANNER IS FAILING

Explanation: The Point-of-Sale Scanner test detected a scanner failure.

User response: Refer to your scanner scale maintenance manual and follow the problem determination procedures.

T1753 T1753 ERROR, REPLACE SCANNER ADAPTER OR SCANNER IS FAILING

Explanation: The test detected a problem in the Point-of-Sale Scanner. If the scanner is a 3687 Checkout Scanner Model 2, a problem was detected in the scanner or the scanner adapter.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T1754 T1754 ERROR, REPLACE SCANNER ADAPTER OR SCANNER IS FAILING

Explanation: The test detected that the Point-of-Sale Scanner status was incorrect.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T1755 T1755 ERROR, REPLACE SCANNER ADAPTER OR SCANNER IS FAILING

Explanation: The Point-of-Sale Scanner test did not recognize the data from the scanner when a label was read.

User response: Refer to your scanner scale maintenance manual and follow the problem determination procedures.

T21nn *(nn = any number)*

Explanation: These messages are scale test status and instruction messages. Refer to your scanner scale maintenance manual and follow the problem determination procedures.

T2300 T2300 FEATURE CARD SOCKETS 23 - 25 TEST

Explanation: The Feature Expansion card socket 23 and 25 test has started.

T2301 T2301 FEATURE CARD 2A TESTING, WAIT

Explanation: Testing the Feature Expansion card in location 2A.

T2302 T2302 DISCONNECT 2A CABLE 23 FROM DEVICE AND PUT TEST PLUG "RS" ON CABLE 23, KEY S2

Explanation: The test is waiting for the RS test plug to be put on the end of cable 23, which is attached to the Feature Expansion card in location 2A.

User response: Disconnect the device attached to cable 23 on the Feature Expansion card in location 2A. Attach the RS test plug (IBM P/N 6165746) to the end of the cable, then press **S2** (**Enter**).

T2304 T2304 2A-CABLE 23 TESTING, WAIT

Explanation: Testing cable 23 attached to the Feature Expansion card in location 2A.

T2305 T2305 REMOVE TEST PLUG FROM CABLE AND RECONNECT DEVICE TO CABLE, KEY S2

Explanation: The test is waiting for the test plug to be removed from the cable.

User response: Remove the test plug from the cable, reconnect the cable to the device, then press **S2** (**Enter**).

T2307 T2307 DISCONNECT 2B CABLE 23 FROM DEVICE AND PUT TEST PLUG "RS" ON CABLE 23, KEY S2

Explanation: The test is waiting for the RS test plug to be put on the end of cable 23, which is attached to the Feature Expansion card in location 2B.

User response: Disconnect the device attached to cable 23 on the Feature Expansion card in location 2B. Attach the RS test plug (IBM P/N 6165746) to the end of the cable, then press **S2** (**Enter**).

T2309 T2309 2B-CABLE 23 TESTING, WAIT

Explanation: Testing cable 23 attached to the Feature Expansion card in location 2B.

T2310 T2310 FEATURE CARD 2B TESTING, WAIT

Explanation: Testing the Feature Expansion card in location 2B.

T2311 T2311 ERROR, IS TEST PLUG "RS" ON CABLE 23? YES=S2 NO=3, S2

Explanation: The test detected an error while testing the Feature Expansion card and cable.

User response: Verify that the test plug, **RS**, is connected to cable 23.
- If it is, press **S2** (**Enter**).
- If it is *not*, type **3** and press **S2**.

T2313 T2313 TEST 2A CABLE 23? YES=S2 NO=3, S2

Explanation: Ready to test the Feature Expansion card in location 2A and cable 23.

User response:
- If you want to test the Feature Expansion card in location 2A and cable 23, press **S2** (**Enter**).
- If you *do not* want to test the Feature Expansion card in location 2A and cable 23, type **3** and press **S2**.

T2314 T2314 TEST CARD 2A? YES=S2 NO=3, S2

Explanation: Ready to test the Feature Expansion card in location 2A.

User response:
- If you want to test the Feature Expansion card in location 2A, press **S2** (**Enter**).
- If you *do not* want to test the Feature Expansion card in location 2A, type **3** and press **S2**.

T2315 T2315 TEST CARD 2B? YES=S2 NO=3, S2

Explanation: Ready to test the Feature Expansion card in location 2B.

User response:
- If you want to test the Feature Expansion card in location 2B, press **S2** (**Enter**).
- If you *do not* want to test the Feature Expansion card in location 2B, type **3** and press **S2**.

T2318 T2318 FEATURE CARD TEST COMPLETE

Explanation: The Feature Expansion card socket 23 and 25 test is complete.

T2319 T2319 TEST 2B CABLE 23? YES=S2 NO=3, S2

Explanation: Ready to test the Feature Expansion card in location 2B and cable 23.

User response:
- If you want to test the Feature Expansion card in location 2B and cable 23, press **S2** (**Enter**).
- If you *do not* want to test the Feature Expansion card in location 2B and cable 23, type **3** and press **S2**.

T2351 T2351 ERROR, REPLACE FEATURE CARD 2A OR BASE UNIT IS FAILING

Explanation: The test for the 4683 Feature Expansion Card 2A has detected an error or the Feature Expansion Card is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2353 T2353 ERROR, REPLACE FEATURE CARD 2A OR BASE UNIT IS FAILING

Explanation: The test detected a problem in the Feature Expansion card in location 2A.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2355 T2355 ERROR, REPLACE CABLE 23 OR FEATURE CARD 2A

Explanation: The 4683 Feature Expansion Card test detected a problem when testing the cable attached to socket 23 on the Feature Expansion card in location 2A.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2361 T2361 ERROR, REPLACE FEATURE CARD 2B OR BASE UNIT IS FAILING

Explanation: The test for 4683 Feature Expansion Card 2B has detected an error or the Feature Expansion Card is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2363 T2363 ERROR, REPLACE FEATURE CARD 2B OR BASE UNIT IS FAILING

Explanation: The test detected a problem in the Feature Expansion card in location 2B.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2365 T2365 ERROR, REPLACE CABLE 23 OR FEATURE CARD 2B

Explanation: The test detected a problem when testing the cable attached to socket 23 on the Feature Expansion card in location 2B.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2366 T2366 ERROR, REPLACE CABLE 23 OR FEATURE CARD 2B

Explanation: The test detected a problem when testing the cable attached to socket 23 on the Feature Expansion card in location 2B.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2375 T2375 SYSTEM UNIT IS FAILING

Explanation: The test detected a failure when testing the asynchronous communication ports (SERIAL A and SERIAL B).

User response:
- Ensure the wrap plug is connected properly.
- If no problems are found, continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2502 T2502 DISCONNECT 2A CABLE 25 FROM DEVICE PUT TEST PLUG "RS" ON CABLE 25, KEY S2

Explanation: The test is waiting for the RS test plug to be put on the end of cable 25 attached to the Feature Expansion card in location 2A.

User response: Disconnect the device attached to cable 25 on the Feature Expansion card in location 2A. Attach the RS test plug (IBM P/N 6165746) to the end of the cable, then press **S2** (**Enter**).

T2503 T2503 DISCONNECT 2A CABLE 25 FROM DEVICE PUT TEST PLUG "CL" ON CABLE 25, KEY S2

Explanation: The test is waiting for the CL test plug to be put on the end of cable 25, which is attached to the Feature Expansion card in location 2A.

User response: Disconnect the device attached to cable 25 on the Feature Expansion card in location 2A. Attach the CL test plug (IBM P/N 6165745) to the end of the cable, then press **S2** (**Enter**).

T2504 T2504 2A-CABLE 25 TESTING, WAIT

Explanation: Testing cable 25 attached to the Feature Expansion card in location 2A.

T2505 T2505 REMOVE TEST PLUG FROM CABLE AND RECONNECT DEVICE TO CABLE, KEY S2

User response: Remove the test plug from the cable, reconnect the cable to the device, then press **S2** (**Enter**).

T2507 T2507 DISCONNECT 2B CABLE 25 FROM DEVICE PUT TEST PLUG "RS" ON CABLE 25, KEY S2

Explanation: The test is waiting for the RS test plug to be put on the end of cable 25 attached to the Feature Expansion card in location 2B.

User response: Disconnect the device attached to cable 25 on the Feature Expansion card in location 2B. Attach the RS test plug (IBM P/N 6165746) to the end of the cable, then press **S2** (**Enter**).

T2508 T2508 DISCONNECT 2B CABLE 25 FROM DEVICE PUT TEST PLUG "CL" ON CABLE 25, KEY S2

Explanation: The test is waiting for the CL test plug to be put on the end of cable 25, which is attached to the Feature Expansion card in location 2B.

User response: Disconnect the device attached to cable 25 on the Feature Expansion card in location 2B. Attach the CL test plug (IBM P/N 6165745) to the end of the cable, then press **S2** (**Enter**).

T2509 T2509 2B-CABLE 25 TESTING, WAIT

Explanation: Testing cable 25 attached to the Feature Expansion card in location 2B.

T2510 T2510 ERROR, IS TEST PLUG "RS" ON CABLE 25? YES=S2 NO=3, S2

Explanation: The test detected an error while testing the Feature Expansion card and cable.

User response: Verify that the test plug, **RS**, is connected to cable 25.
- If it is, press **S2** (**Enter**).
- If it is *not*, type **3** and press **S2**.

T2512 T2512 TEST 2A CABLE 25? YES=S2 NO=3, S2

Explanation: Ready to test the Feature Expansion card in location 2A and cable 25.

User response:
- If you want to test the Feature Expansion card in location 2A and cable 25, press **S2** (**Enter**).
- If you *do not* want to test the Feature Expansion card in location 2A and cable 25, type **3** and press **S2**.

T2513 T2513 TEST 2B CABLE 25? YES=S2 NO=3, S2

Explanation: Ready to test the Feature Expansion card in location 2B and cable 25.

User response:
- If you want to test the Feature Expansion card in location 2B and cable 25, press **S2** (**Enter**).
- If you *do not* want to test the Feature Expansion card in location 2B and cable 25, type **3** and press **S2**.

T2555 T2555 ERROR, REPLACE CABLE 25 OR FEATURE CARD 2A

Explanation: The test detected a problem when testing the cable that is attached to socket 25 on the Feature Expansion card in location 2A.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2565 T2565 ERROR, REPLACE CABLE 25 OR FEATURE CARD 2B

Explanation: The test detected a problem when testing the cable that is attached to socket 25 on the Feature Expansion card in location 2B.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2600 T2600 TESTING WAND FEATURE

Explanation: The magnetic wand test has started.

T2601 T2601 READ A LABEL WITH MAGNETIC WAND

Explanation: The test is ready to read a label with the magnetic wand. Each time a label is read correctly, message T2603 displays and the keyboard beeps. The label data can be printed in unformatted form by typing **5** and pressing **S2**.

User response: Observe the display or listen for the beep to verify that the label reads OK.

T2602 T2602 READ A LABEL, PRINT UNFORMATTED

Explanation: The test is ready to read a label with the magnetic wand. Each time a label is read correctly, message T2603 displays. The label data is printed at the printer customer receipt station.

User response: Read a label with the magnetic wand.

T2603 T2603 READ OK, READY TO READ AGAIN

Explanation: The label was read correctly by the magnetic wand. The keyboard beeps when this message is displayed.

User response: Read another label with the magnetic wand.
To end the test, type **0** and press **S2** (**Enter**).

T2651 T2651 ERROR, REPLACE FEATURE CARD 2A OR BASE UNIT IS FAILING

Explanation: The test detected that the Feature Expansion card that is in location 2A is not communicating. The device being tested is connected to socket 26.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2652 T2652 ERROR, REPLACE FEATURE CARD 2A

Explanation: The test detected a command response problem from the Feature Expansion card in location 2A.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2655 T2655 KEY 1, S2 AND READ AGAIN OR REPLACE LABEL OR MAGNETIC WAND

Explanation: The magnetic wand read the label but detected an error in the label data.

User response: Type **1** and press **S2** (**Enter**) to restart the test. Ensure that a good label is being used. Read the label again with the magnetic wand.

If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T2661 T2661 ERROR, REPLACE FEATURE CARD 2B OR BASE UNIT IS FAILING

Explanation: The test detected that the Feature Expansion card that is in location 2B is not communicating. The device being tested is connected to socket 26.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2662 T2662 ERROR, REPLACE FEATURE CARD 2B

Explanation: The test detected a command response problem from the Feature Expansion card in location 2B.

User response: Power Off the terminal and exchange the Feature Expansion card in location 2B.

T2900 T2900 START COIN EXERCISER

Explanation: The coin dispenser test has started.

T2901 T2901 ENTER AMOUNT TO DISPENSE 01-9999

Explanation: The test is waiting for the amount to be dispensed.

User response: Key an amount that is valid for the coin dispenser. The test accepts numbers from 01 through 9999.

T2903 T2903 AMOUNT ENTERED NOT VALID

Explanation: The test accepts numbers from 01 through 9999.

User response: Key a valid amount.

T2951 T2951 ERROR, REPLACE FEATURE CARD 2A OR BASE UNIT IS FAILING

Explanation: The test detected that the Feature Expansion card that is in location 2A is not communicating. The device being tested is connected to socket 29.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2952 T2952 ERROR, REPLACE FEATURE CARD 2A

Explanation: The test detected a command response problem from the Feature Expansion card in location 2A.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2961 T2961 ERROR, REPLACE FEATURE CARD 2B OR BASE UNIT IS FAILING

Explanation: The test detected that the Feature Expansion card that is in location 2B is not communicating. The device being tested is connected to socket 29.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T2962 T2962 ERROR, REPLACE FEATURE CARD 2B

Explanation: The test detected a command response problem from the Feature Expansion card in location 2B.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T3100 through T3144

Explanation: These messages are cash drawer test status and instruction messages. Follow the instructions that are displayed. For more detail, see the *IBM Store Systems: Hardware Service Manual for Input/Output Devices*.

T3151 T3151 ERROR, BASE UNIT IS FAILING

Explanation: The cash drawer adapter on the system board is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T3152 T3152 ERROR, BASE UNIT IS FAILING

Explanation: A cash drawer adapter error was detected.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T3153 T3153 CASH DRAWER 3A IS NOT CONNECTED

Explanation: The test detected that cash drawer **A** is not connected to the point-of-sale terminal.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T3161 T3161 ERROR, BASE UNIT IS FAILING

Explanation: The test detected that cash drawer **B** adapter is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T3162 T3162 ERROR, BASE UNIT IS FAILING

Explanation: The test detected a cash drawer **B** command response problem.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T3163 T3163 CASH DRAWER 3B IS NOT CONNECTED

Explanation: The test detected that cash drawer **B** is not connected to the point-of-sale terminal.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T3164 T3164 CASH DRAWER 3B IS NOT CONFIGURED

Explanation: The test detected that cash drawer **B** is not configured.

User response: Use the *IBM 4690 OS: Planning, Installation, and Configuration Guide* and the *IBM 4690 OS: User's Guide* to configure the store system for cash drawer B.

T3170 T3170 NO CASH DRAWER PRESS THE 0 KEY

Explanation: The cash drawer test was selected, but no cash drawers responded when Test Mode was entered (IBM 4683 Model A02 Stand-Alone Test Mode).

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T3400 T3400 TESTING REMOTE ALARM

Explanation: The remote alarm test has started.

T3401 T3401 REMOTE ALARM IS ON

Explanation: The test has activated the remote alarm for one-half second.

T3402 T3402 REMOTE ALARM IS OFF, KEY S2

Explanation: The test has deactivated the remote alarm.

User response: Press **S2** (**Enter**).

T3451 T3451 ERROR, BASE UNIT IS FAILING

Explanation: The test detected that the remote alarm adapter is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T3452 T3452 ERROR, BASE UNIT IS FAILING

Explanation: The test detected a command response problem from the remote alarm.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T3453 T3453 ERROR, REPLACE REMOTE ALARM OR CABLE 3B OR BASE UNIT IS FAILING

Explanation: The test detected that the remote alarm is not connected.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T3454 T3454 REMOTE ALARM 3B IS NOT CONFIGURED

Explanation: The test detected that the operating system is not configured to support the remote alarm.

User response: Use the *IBM 4690 OS: Planning, Installation, and Configuration Guide* and the *IBM 4690 OS: User's Guide* to configure the store system.

T4100 T4100 TESTING DISPLAY

Explanation: The display test has started.

T4101 T4101 TC/SC CHINESE APA DISPLAY TEST

Explanation: The display test has started.

T4102 T4102 JAPANESE APA DISPLAY TEST

Explanation: The display test has started.

T4103 T4103 KOREAN APA DISPLAY TEST

Explanation: The display test has started.

T4104 T4104 TESTING APA DISPLAY

Explanation: The display test has started.

T4151 T4151 ERROR, REPLACE DISPLAY 4A OR DISPLAY CABLE 4A OR BASE UNIT IS FAILING

Explanation: The display test detected that display 4A is failing.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4152 T4152 ERROR, REPLACE DISPLAY 4A

Explanation: The display test detected that display 4A is failing.

User response: Exchange the display.

T4153 T4153 ERROR, REPLACE DISPLAY 4A OR DISPLAY CABLE 4A OR BASE UNIT IS FAILING

Explanation: The test detected that the display connected to socket 4A is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4154 T4154 ERROR, REPLACE DISPLAY 4A

Explanation: The test detected that the display connected to socket 4A is failing.

User response: Power Off the terminal and exchange the display.

T4157 T4157 COMBINED KEYBOARD/DISPLAY DISPLAY, CABLE, OR SYSTEM UNIT FAILING

Explanation: The display test detected that the combined keyboard/display is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4158 T4158 COMBINED KEYBOARD/DISPLAY IS FAILING

Explanation: The display test detected that the combined keyboard/display is failing.

User response: Exchange the display in the Combined Keyboard/Display 5A. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4161 T4161 DISPLAY 4B, 9A, 9B, 9C, DISPLAY CABLE OR THE SYSTEM UNIT IS FAILING

Explanation: The display test detected that display 4B, 9A, 9B, or 9C is failing.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4162 T4162 DISPLAY 4B, 9A, 9B, 9C IS FAILING

Explanation: The display test detected that display 4B, 9A, 9B, or 9C is failing.

User response: Exchange the display.

T4163 T4163 ERROR, REPLACE DISPLAY 4B OR DISPLAY CABLE 4B OR BASE UNIT IS FAILING

Explanation: The test detected that the display connected to socket 4B is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4164 T4164 ERROR, REPLACE DISPLAY 4B

Explanation: The test detected that the display connected to socket 4B is failing.

User response: Power Off the terminal and exchange the display.

T4167 T4167 THE DISPLAY ON THE COMBINED KEYBOARD/DISPLAY 5B, CABLE, OR THE SYSTEM UNIT IS FAILING

Explanation: The display test detected a combined keyboard/display failure.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4168 T4168 THE DISPLAY ON THE COMBINED KEYBOARD/DISPLAY 5B IS FAILING

Explanation: The display test detected a Combined Keyboard/Display failure.

User response: Exchange the display in the Combined Keyboard/Display 5B. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4300 T4300 TESTING DISPLAY

Explanation: The shopper display test has started.

T4301 T4301 GET LC_ALL FAIL, EXIT

Explanation: The GET LC_ALL function is failing.

T4351 T4351 DISPLAY 4A, CABLE, OR SYSTEM UNIT IS FAILING

Explanation: The display test detected a display failure.

User response: Exchange the display. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4352 T4352 DISPLAY 4A IS FAILING

Explanation: The display test detected a display failure.

User response: See the *IBM Store Systems: Hardware Service Manual for Input/Output Devices* and exchange the display.

T4353 T4353 ERROR, REPLACE DISPLAY 4A OR DISPLAY CABLE 4A OR BASE UNIT IS FAILING

Explanation: The test detected that the shopper display connected to socket 4A is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4354 T4354 ERROR, REPLACE DISPLAY 4A

Explanation: The test detected that the shopper display connected to socket 4A is failing.

User response: Power Off the terminal and exchange the shopper display. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4361 T4361 DISPLAY 4B, 9A, 9B, 9C, CABLE, OR THE SYSTEM UNIT IS FAILING

Explanation: The display test detected a display failure.

User response: Exchange the display. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4362 T4362 DISPLAY 4B, 9A, 9B, OR 9C IS FAILING

Explanation: The display test detected a display failure.

User response: Exchange the display. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4363 T4363 DISPLAY 4B, CABLE, OR SYSTEM UNIT IS FAILING

Explanation: The display test detected a display failure.

User response: Exchange the display. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T4364 T4364 DISPLAY 4B IS FAILING

Explanation: The display test detected a display failure.

User response: See the *IBM Store Systems: Hardware Service Manual for Input/Output Devices* and exchange the display.

T5100 through T5115

Explanation: These messages are keyboard test status and instruction messages. Follow the instructions that are displayed. For more detail, see the hardware service documentation for your point-of-sale terminal and I/O devices.

T5140 T5140 KEYBOARD TEST PRESS A KEY, 0=EXIT

Explanation: The point-of-sale keyboard test has been selected (IBM 4683 Model A02 Stand-Alone Test Mode).

If your point-of-sale keyboard has a BRIDGE or PLATE covering more than one key, it must be removed during this test. Pressing single keys rapidly or pressing more than one key simultaneously can result in erroneous scan code displays.

User response: Press any key (except the 0 key).

You can stop the point-of-sale keyboard test by pressing **0**.

T5141 T5141 KEY SCAN CODE: XX

Explanation: The point-of-sale keyboard test is active. The scan code for the key you just pressed is shown on the bottom line of this panel (IBM 4683 Model A02 Stand-Alone Test Mode).

The alphanumeric keyboard has five Make/Break keys: CTL, Left Shift, Right Shift, ALT and Caps Lock. When pressed and held, each of these keys display their scan code; when released, F0 is displayed.

User response: Press the keys you want to test *one at a time* and compare the displayed scan code with the chart of scan codes for your point-of-sale keyboard.

If the displayed scan code is not correct, exchange the point-of-sale keyboard.

T5151 T5151 KEYBOARD, CABLE, OR THE BASE UNIT IS FAILING

Explanation: The keyboard test detected that the keyboard is failing.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T5152 T5152 KEYBOARD 5A IS FAILING

Explanation: The keyboard test detected that the keyboard is failing.

User response: Exchange or repair the keyboard. See the hardware service documentation for your point-of-sale terminal and I/O devices.

T5154 T5154 ONLY TEST KEYBOARD-V

Explanation: The keyboard used cannot be tested by DBCS OLE. Use Keyboard-V.

User response: Use Keyboard-V for testing.

T5155 T5155 ONLY TEST KBD-V WITH APA DSP

Explanation: The display used cannot be tested by DBCS OLE. Use an APA display and ensure that you are using the Keyboard-V for testing.

User response: Use an APA display and Keyboard-V for testing.

T5170 T5170 KEYBOARD DOES NOT RESPOND, RESTART

Explanation: The point-of-sale keyboard has stopped communicating (IBM 4683 Model A02 Stand-Alone Test Mode).

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T5254 T5254 ONLY TEST KEYBOARD-VI

Explanation: The keyboard used can **not** be tested by DBCS OLE. Use Keyboard-VI.

User response: Use Keyboard-VI for testing.

T5255 T5255 ONLY TEST KYBD-VI WITH APA DISPLAY

Explanation: The keyboard used can **not** be tested by DBCS OLE. Use an APA display and ensure that you are using Keyboard-VI for testing.

User response: Use an APA display and Keyboard-VI for testing.

T5400 T5400 TESTING IBM 1520-A02

Explanation: Testing the 1520 Hand-Held Scanner Model A02 Adapter.

T5401 T5401 READ A LABEL WITH IBM 1520-A02

Explanation: The test is ready to read a UPC/EAN label with the IBM 1520 Hand-Held Scanner Model A02. The data that is read from the label is formatted and printed at the customer receipt station.

User response: Use the 1520 Model A02 to read a label. Observe the printing at the customer receipt station to verify that the label was read correctly.

T5402 T5402 READ A LABEL, PRINT UNFORMATTED

Explanation: The test is ready to read a label with the IBM 1520 Hand-Held Scanner Model A02. The data that is read from the label is printed at the customer receipt station as it is received from the 1520 Model A02 (unformatted).

User response: Use the 1520 Model A02 to read a label. Observe the printing at the customer receipt station to verify that the label was read correctly.

T5451 T5451 ERROR, CHECK 1520-A02 POWER IF ON, REPLACE 1520-A02

Explanation: The test detected that the 1520 Hand-Held Scanner Model A02 is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T5452 T5452 ERROR, REPLACE 1520-A02

Explanation: The test detected a read problem in the IBM 1520 Hand-Held Scanner Model A02.

User response:
1. Power Off the 1520 Model A02 console and unplug the console power cord.
2. Power Off the terminal and exchange the 1520 Model A02.

T5455 T5455 ERROR, VERIFY THAT THE LABEL IS GOOD

Explanation: The test detected an error when reading a label with the IBM 1520 Hand-Held Scanner Model A02.

User response: Try several times to read the labels. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T5470 T5470 NO SCANNER PRESS THE 0 KEY

Explanation: No scanners responded to polling when Test Mode was entered (IBM 4683 Model A02 Stand-Alone Test Mode).

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T5471 T5471 SCANNER TIMED OUT, PRESS THE 0 KEY

Explanation: The active scanner did not respond with label data within ten seconds (IBM 4683 Model A02 Stand-Alone Test Mode).

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6100 T6100 TESTING MSR

Explanation: The magnetic stripe reader (MSR) test has started.

T6101 T6101 READ TEST CARD WITH MSR

Explanation: The magnetic stripe reader (MSR) test is ready to read the test card.

User response: Pass the test card through the slot in the MSR.
- For a Single-Track MSR, use test card (P/N 4055210) or (P/N 90X9640).
- For a Dual-Track MSR, use test card (P/N 90X9640).

If no other message displays to indicate a successful read or an error, the test card was not read.
1. Exchange the MSR.
2. Exchange or service the keyboard. See the hardware service documentation for your point-of-sale terminal and I/O devices.

T6102 T6102 READ OK, READY TO READ AGAIN

Explanation: The test has analyzed the data read by the MSR and found the data to be correct. The test is ready to read the test card again.

User response: Pass the test card through the slot in the MSR.

T6103 T6103 TESTING JUCC MSR

Explanation: The JUCC magnetic stripe reader (MSR) test has started.

User response: Pass the test card through the slot in the MSR.

T6111 T6111 READ MSR TEST CARD (IBM P/N 90X9640 or IBM P/N 09F3394)

Explanation: The test is ready to read the MSR test card.

User response: Pass test card (IBM P/N 90X9640) through the slot in the MSR.

T6112 T6112 READ MSR TEST CARD (P/N 09F3394)

Explanation: The test is ready to read the MSR test card.

User response: Pass the test card (IBM P/N 09F3394) through the slot in the MSR.

T6140 T6140 MSR TEST READ MSR TEST CARD

Explanation: The magnetic stripe reader test is ready to accept data from the single-track magnetic stripe reader (IBM 4683 Model A02 Stand-Alone Test Mode).

The MSR test compares the stored test data with the data read from the test card. No printing occurs.

User response: Pass the test card (IBM P/N 4055210 or IBM P/N 90X9640) through the slot in the MSR.

T6141 T6141 TEST CARD READ CORRECTLY

Explanation: The single-track magnetic stripe reader has read the test data correctly (IBM 4683 Model A02 Stand-Alone Test Mode).

This message is replaced with message T0007 after about 2 seconds.

T6151 T6151 ERROR, REPLACE MSR OR KEYBOARD OR KEYBOARD CABLE OR BASE UNIT IS FAILING

Explanation: The MSR test detected that the keyboard/MSR attached to socket 5A is failing.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6152 T6152 ERROR, REPLACE KEYBOARD

Explanation: The MSR test detected that the keyboard/MSR is failing.

User response: Exchange or repair the keyboard. See the hardware service documentation for your point-of-sale terminal and I/O devices.

T6153 T6153 KEY 1, S2 READ TEST CARD AGAIN, OR REPLACE KEYBOARD, OR BASE UNIT IS FAILING

Explanation: The test detected that the MSR test card was not read correctly.

User response:
1. Verify that the test card, IBM P/N 4055210 or IBM P/N 90X9640, is being used.
2. Clean the MSR read head using MSR cleaning card, IBM P/N 6019483.
3. Type **1** and press **S2** (**Enter**) to restart the test.
4. Pass the test card through the MSR slot several more times.
5. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6154 T6154 ERROR, READ AGAIN OR REPLACE MSR OR KEYBOARD

Explanation: The test did not read any data from the MSR.

User response:
1. Verify that test card, IBM P/N 4055210 or IBM P/N 90X9640, is being used.
2. Clean the MSR read head using MSR cleaning card, IBM P/N 6019483.
3. Type **1** and press **S2** (**Enter**) to restart the test.
4. Pass the test card through the MSR slot several more times.
5. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6155 T6155 KEY 1, S2 AND READ AGAIN, OR REPLACE TEST CARD OR MSR OR KEYBOARD

Explanation: The MSR test detected an operational problem.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6156 T6156 ERROR, REPLACE MSR OR KEYBOARD, OR BASE UNIT IS FAILING

Explanation: The test detected that the MSR is not attached to the keyboard.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6161 T6161 MSR, KEYBOARD, OR CABLE 5B IS FAILING

Explanation: The MSR test detected that the keyboard/MSR attached to socket 5B is failing.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6162 T6162 MSR OR KEYBOARD IS FAILING

Explanation: The MSR test detected that the keyboard/MSR is failing.

User response: Exchange or repair the keyboard. See the hardware service documentation for your point-of-sale terminal and I/O devices.

T6170 T6170 MSR NOT FOUND, PRESS THE 0 KEY

Explanation: The magnetic stripe reader is not communicating with the 4683 base unit (IBM 4683 Model A02 Stand-Alone Test Mode).

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6171 T6171 MSR TIMED OUT, PRESS THE 0 KEY

Explanation: The magnetic stripe reader test did not receive valid test data from the MSR within 10 seconds after being started (IBM 4683 Model A02 Stand-Alone Test Mode).

User response:
1. Press **0** and select the MSR test (**6**) again.
2. Pass the test card, IBM P/N 4055210 or IBM P/N 90X9640, through the slot in the MSR several times.
3. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6172 T6172 MSR READ ERROR, PRESS THE 0 KEY

Explanation: The data read from the magnetic stripe reader test card does not match the expected data (IBM 4683 Model A02 Stand-Alone Test Mode).

User response:
1. Ensure that MSR test card, IBM P/N 4055210 or IBM P/N 90X9640, is being used.
2. Press **0** and select the MSR test (**6**) again.
3. Pass the test card through the MSR slot several times.
4. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6181 T6181 ERROR, REPLACE MSR OR MSR CABLE

Explanation: The MSR test detected that the dual-track MSR is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6182 T6182 KEY 1, S2 READ TEST CARD AGAIN, OR REPLACE TEST CARD OR MSR

Explanation: The test detected that the MSR test card was not read correctly.

User response:
1. Verify that test card, IBM P/N 90X9640, is being used.
2. Clean the MSR read head using the MSR cleaning card, IBM P/N 6019483.
3. Type **1** and press **S2** (**Enter**) to restart the test.
4. Pass the test card through the MSR several more times.
5. If the problem persists, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6183 T6183 WRONG MSR CHECK CONFIGURATION OR REPLACE MSR

Explanation: The test detected a mismatch in the configuration file for the MSR. For example, the MSR is configured to read tracks 1 and 2, but the MSR, that is attached, reads tracks 2 and 3.

User response: Verify that the configuration for the MSR is correct. Refer to the *IBM 4690 OS: Planning, Installation, and Configuration Guide*.

If the problem persists, exchange the MSR. See the hardware service documentation for your point-of-sale terminal and I/O devices.

T6185 T6185 KEY 1, S2 READ TEST CARD AGAIN OR REPLACE TEST CARD OR MSR

Explanation: The MSR test detected an operational problem.

User response: See the hardware service documentation for your point-of-sale terminal and I/O devices.

T6187 T6187 COMBINED KEYBOARD/DISPLAY MSR OR THE KEYBOARD IS FAILING

Explanation: The magnetic stripe reader (MSR) test detected that the dual-track MSR attached to the combined keyboard/display is failing.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6188 T6188 MSR, KEYBOARD, CABLE, OR SYSTEM UNIT IS FAILING

Explanation: The magnetic stripe reader (MSR) test detected that the MSR is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T6194 T6194 MSR, KEYBOARD, OR CABLE CONNECTED TO KEYBOARD PORT IS FAILING.

Explanation: The MSR test detected that the keyboard/MSR (system unit keyboard) attached to the **kybd** port is failing.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T7100 Through T7140

Explanation: These messages are printer test status and instruction messages. Follow the instructions that are displayed. For additional details, see the hardware service documentation for your point-of-sale terminal and I/O devices.

T7151 Through T7174

Explanation: These messages are printer test instruction and error messages.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T8000 T8000 TESTING VIDEO

Explanation: The video display test has started.

User response: If this message does not change, continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T8053 T8053 ERROR, REPLACE FEATURE CARD 2A OR BASE UNIT IS FAILING

Explanation: The test received no communication from the Feature Expansion card in location 2A.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T8054 T8054 ERROR, REPLACE FEATURE CARD 2A

Explanation: The test detected a problem in the Feature Expansion card in location 2A.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T8063 T8063 ERROR, REPLACE FEATURE CARD 4B OR BASE UNIT IS FAILING

Explanation: The test received no communication from the Feature Expansion card in location 4B.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T8064 T8064 ERROR, REPLACE FEATURE CARD 4B

Explanation: The test detected a problem in the Feature Expansion card in location 4B.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

T9400 T9400 TESTING IBM BAR CODE READER

Explanation: The IBM Hand-Held Bar Code Reader test has started.

T9401 T9401 READ A LABEL WITH BAR CODE READER

Explanation: The test is ready to read a UPC/EAN label with the IBM Hand-Held Bar Code Reader. The data that is read from the label is formatted and printed at the customer receipt station.

User response: Use the bar code reader to read a label. Observe the printing at the customer receipt station to verify that the label was read correctly.

T9402 T9402 READ A LABEL, PRINT UNFORMATTED

Explanation: The test is ready to read a label with the IBM Hand-Held Bar Code Reader. The data that is read from the label is printed at the customer receipt station as it is received from the bar code reader (unformatted).

User response: Use the bar code reader to read a label. Observe the printing at the customer receipt station to verify that the label was read correctly.

T9451 T9451 ERROR, REPLACE IBM BAR CODE READER OR BASE UNIT IS FAILING

Explanation: The IBM Hand-Held Bar Code Reader is not communicating.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices.

T9452 T9452 ERROR, REPLACE IBM BAR CODE READER

Explanation: The IBM Hand-Held Bar Code Reader is failing.

User response: Exchange the bar code reader. If the problem persists, see the hardware service documentation for your point-of-sale terminal and I/O devices.

T9455 T9455 ERROR, VERIFY THAT LABEL IS GOOD

Explanation: The test detected an error when reading a label with the Hand-Held Bar Code Reader.

User response: Type **0** and press **S2** (**Enter**) to end the test. Try several times to read the labels.

If the problem persists:
1. Verify that the labels being used are valid for the bar code reader.
2. Verify that the labels are in good condition.

   If the labels are in good condition, exchange the IBM Hand-Held Bar Code Reader.

T95nn

Explanation: The T95nn messages are related to the Fiscal printer utilities.

User response: Refer to your Fiscal printer supplementary documentation.

T9700 T9700 START VPD ENTRY

Explanation: The vital product entry procedure has started. See “Entering Vital Product Data for the 4683 or 4693” on page 438.

T9701 T9701 ENTER TERMINAL ADDRESS FOR VPD

Explanation: A terminal number must be keyed for the vital product data entry procedure.

User response: Type a 3-digit terminal number for vital product data.

T9702 T9702 ENTRY TOO LONG OR TOO SHORT

Explanation: The terminal number that was keyed for the vital product data entry procedure was the wrong length.

User response: Type a 3-digit terminal number for vital product data.

T9703 T9703 VPD DATA NOT FOUND

Explanation: No record was found for the terminal number that was typed for the vital product data entry procedure.

User response: Type a valid terminal number for vital product data.

T9801 T9801 ENTER SERIAL NUMBER MM-SSSSS

Explanation: The terminal serial number must be typed in for the vital product data entry procedure.

User response: Type the serial number (S/N) of the point-of-sale terminal. It is embossed on the top of the base unit cover at the back-right corner.

T9802 T9802 ENTER CARD EC XXXXXXX

Explanation: The engineering change (EC) number of the terminal base card must be typed in for the vital product data entry procedure.

User response: Type the EC number of the terminal base card.

T9803 T9803 ENTER CARD EC XXXXXXX

Explanation: The engineering change (EC) number of the Mod2 base card must be typed in for the vital product data entry procedure.

User response: Type the EC number of the Mod2 base card.

T9804 T9804 ENTER POWER SUPPLY EC XXXXXXX

Explanation: The engineering change (EC) number of the terminal power supply must be typed in for the vital product data entry procedure.

User response: Type the EC number of the power supply.

T9805 T9805 ENTRY COMPLETE UPDATING VPD

Explanation: The vital product data entry procedure is complete.

U*nnn* messages

These messages are generated by the terminal and the operating system during terminal IPL and are for a terminal *only*.

U001 U001

Explanation: The point-of-sale display has completed the power-on self-tests (POSTs) and it is waiting to receive communications from the point-of-sale terminal system unit or base unit.

User response: Wait a maximum of 10 seconds for the IPL to proceed.
If U001 remains on the display, continue problem determination using the hardware service documentation for your point-of-sale terminal.

U002 U002

Explanation: The point-of-sale terminal is attached to a partner terminal. It has completed the power-on self-tests (POSTs) and it is waiting to receive communications from the terminal to which it is attached.

User response: After you power On the partner point-of-sale terminal, wait for the next message to display. On one of the partner 4693 terminals, the U002 remains on the display until the U006 appears. This time can be as long as three minutes. The progress between a U002 and U006 can only be observed on the 4693 to which that terminal is attached.
If U002 remains on the display, continue problem determination using the hardware service documentation for your point-of-sale terminal.

U003 U003

Explanation:
Terminal – The 4683, 4693, 4694, or SurePOS Series point-of-sale terminal has completed its power-on self-tests (POSTs) and is waiting to receive communications from the store controller. A partner 4683 Mod2 also displays U003, but a partner 4693 does not.
Controller/Terminal – The controller/terminal has completed its power-on self-tests (POSTs) and communications have been established on the device channel. A partner 4683 Mod2 also displays U003.

User response: If the terminal is attached to a TCC Network, wait a maximum of one minute for U004 to display.

For token ring or Ethernet, **if U003 remains on the display**, make sure all connections are made and all communication devices are powered On and working. For additional information, refer to the appropriate documentation for your network components.

U004 U004

Explanation:
Terminal – The point-of-sale terminal has completed its power-on self-tests (POSTs) and has started to communicate over the store loop or TCC Network. It has received store loop polls from the store controller. It has not yet received a response to messages it has sent to the store controller. A partner 4683 Mod2 also displays U004, but a partner 4693 does not.

If *xxxxxxxx* appears, the 4694 terminal is receiving the first stage of the terminal load. *xxxxxxxx* is a count of load blocks. The load is in progress as long as the count increases. If the count remains the same, a block was missed

because of noise on the loop. The broadcast of the first stage load is requested again. When the missing load block is received, the count increases again. U005 appears when this stage of the load is complete.
Controller/Terminal – The controller/terminal has completed its power-on self-tests (POSTs) and the terminal load has started. A partner 4683 Mod2 terminal also displays U004.

User response: Wait a maximum of 10 minutes for the next message to display. This time can be between 30 seconds and 10 minutes, depending on the store system configuration.

U005 U005

Explanation:
4683 – The 4683 point-of-sale terminal has completed the power-on self-tests (POSTs) and started the IPL process. The first load block has been received. A partner 4683 Mod2 also displays the U005 message.
4693, 4694, or RIPL-booted SurePOS Series Terminal – The first stage of the point-of-sale terminal RIPL is complete and the second stage load request is being sent. If *xxxxxxxx* appears, the terminal is receiving the second stage of the terminal load. *xxxxxxxx* is a count of load blocks. The load is in progress as long as the count increases. If the count remains the same, a block was missed by the terminal on the TCC Network. The broadcast of the second stage load is requested again. When the missed block is received, the count increases again. U006 appears when this stage of the load is complete. A partner 4693 does not display the U005 message.
PXE-booted terminal – The terminal is loading the OS image from the store controller. The number following the U005 is a progression indicator of the block count of the load. Additional OS images are required for Enhanced Mode terminals and are loaded from the store controller following the first image. The additional images are identified by a .1A or .1B appended to the U005 portion of the message, for example U005.1A. The remainder of the message has the same format as shown below for U005. The message format and description are the following:

- U005* n – Loading block n using Multicast TFTP where '*' indicates this terminal is the lead client in the multicast load.
- U005 n – Loading block n using Multicast TFTP and terminal is not the lead client.
- U005** n – Loading block n using unicast TFTP (indicated by '**).

For PXE-booted terminals, the PXE bootstrap determines whether to load the terminal in Classic Mode or in Enhanced Mode based on the configuration and the terminal type.

If the terminal is loading in Classic Mode, the U005 message appears when the classic 4690 image loads, followed by a U006 message, as is done for previous versions of 4690.

If the terminal is loading in Enhanced Mode, the U005 message appears for the loading of the first stage of the OS image, and additional U005.x messages appear to indicate the progress of subsequent stages of the enhanced 4690 IPL. The messages have the following meanings:

U005.1A or U005.1B
The PXE bootstrap is transferring the enhanced load images. Progress of the load is indicated by a count following the message.

U005.2 The transfer of the enhanced load image is complete and the PXE bootstrap is passing control to the OS.

U005.3 The OS has control and is starting the load sequence for 4690 in Enhanced Mode.

U005.4 The OS is transferring files and setting up the 4690 enhanced mode environment, or is rebooting or shutting down. Messages and counting sequences follow U005.4 to indicate progression.

U005.5 4690 Enhanced Mode loading is complete. U006 or U007 messages should follow to indicate continuation of 4690 Enhanced Mode IPL.

User response: No action is required if the message sequence progresses. Wait a maximum of 10 minutes for the next progression message to display (U005.x, U006, or U007).

Note: For USB-attached 2x20 displays on Enhanced Terminals, U006 will not appear after the U005 sequence has completed. Instead, these USB-attached 2x20 displays will show OK after the U005 sequence, progressing then to U007.

For a token ring- or Ethernet-attached 4693, 4694, or SurePOS 300/700 Series terminal, **if U005 remains on the display**, you must perform these steps:

1. Ensure that the terminal OS load file ADXRT8TL.286 (ADXRT8EL.286 for Ethernet-attached terminals) exists. Replace the file if necessary, then IPL the terminal.
2. Because the delay could be caused by the inconsistency between the terminal and controller store IDs, ensure that the store controller exists in the same LAN segment (local ring) with that of the terminal. Press the **system reset** (dump) button while the U005 message remains on the panel to load the Set Terminal Characteristics (STC) application and to receive a new store ID.

For additional information, refer to the appropriate documentation for your network components.

U006 U006

Explanation:

Terminal – The point-of-sale terminal has completed its IPL process and the terminal operating system load is complete. The terminal operating system has control and optional drivers are being installed. A partner 4683 Mod2 also displays U006, but a partner 4693 does not.

Note: For USB-attached 2x20 displays on Enhanced Terminals, U006 will not appear after the U005 sequence has completed. Instead, these USB-attached 2x20 displays will show OK after the U005 sequence, progressing then to U007.

Controller/terminal – The controller/terminal has completed its power-on self-tests (POSTs) and the terminal operating system load has established communications on the device channel. A partner terminal also displays U006.

Note: For USB-attached 2x20 displays on Enhanced Controller/Terminals, U006 will not appear after the U005 sequence has completed. Instead, these USB-attached 2x20 displays will show OK after the U005 sequence, progressing then to U007.

User response: Wait a maximum of 10 minutes for the next message to display. This time can be between 30 seconds and 10 minutes, depending on the store system configuration.

If U006 remains on the display, continue problem determination using “MAP 0040: U006 Message” on page 465. Also, look in the system messages log for possible driver errors and refer to the appropriate documentation for your network components.

U007 U007

Explanation:

Terminal – The point-of-sale terminal IPL process has loaded terminal message records and I/O data translation tables into storage. Point-of-sale terminal I/O driver programs are being loaded into storage. The display optional driver is installed. The remaining optional drivers are being installed.

Controller/Terminal – Communications on the device channel have been completed and the controller/terminal is waiting for the terminal operating system drivers to load. U007 remains on the display if the Controller/Terminal is configured with a nonshared keyboard and a keyboard is not attached. Ensure that a keyboard is attached.

User response: Wait a maximum of 10 minutes for the next message to display. This time can be between 30 seconds and 10 minutes, depending on the store system configuration.

If U007 remains on the display, continue problem determination using “MAP 0050: U007 Message” on page 470. For additional information, refer to the appropriate documentation for your network components.

U008 U008

Explanation: A storage dump is in progress. Additional data is collected when dumping a terminal running in Enhanced Mode. The following messages are displayed to indicate the progression of the enhanced terminal dump:

U008.1 Collecting system information.

U008.2 Collecting trace files.

User response:

4683 – Wait for the dump to complete (approximately 10 minutes per MB of terminal RAM). Follow the *User Response* for the message (W051, W052, W053, or W054) displayed at the store controller. The terminal IPLs when the dump is complete. A partner 4683 Mod2 also displays the U008 message.

4693, 4694, or SurePOS 300/700 Series – The terminal dump program has control. If *xxxxxxxx* appears, the dump is in progress. *xxxxxxxx* is a count of RAM bytes left to be dumped. The dump is in progress as long as the

count is decreasing. The dump is complete when the count reaches 00000000. The terminal then resets and reloads. A partner 4693 does not display the U008 message.

Note: If the 4693 or SurePOS 300/700 Series IPLs without displaying an *xxxxxxxx* count with U008, check to be sure the dump file ADXCSLTF.DAT exists in the ADX_SDT1 subdirectory of your store controller. If this file does not exist, then you need to create one. The content of the file is not important but no storage dump is taken if this file does not exist at the time the dump request is made. Then the ADXCSLTF.DAT file is replaced by the terminal storage dump.

Because the data dump is being compressed before it is sent to the controller, the frequency at which the count changes varies.

If U008 remains on the display, the dump begins again when the controller becomes available. If U008 *xxxxxxxx* remains on the display, follow the **User Response** for the message (W051, W052, W053, or W054) displayed at the store controller. The terminal IPLs when the dump is complete.

If U008:V00 appears on the display, an Enhanced terminal dump could not be executed. Instead, special trace files have been collected into the file VX_DM*xxx*D.ZIP (where *xxx* is the terminal number) in the ADX_SDT1 subdirectory on the controller. This must be collected manually, not using the Create Problem Analysis Diskette (CPAD) utility.
If U008 remains on the display, continue problem determination using “MAP 0060: U008 Message” on page 471. For additional information, refer to the appropriate documentation for your network components.

U009 U009

Explanation: Three consecutive storage dumps have occurred at the point-of-sale terminal as a result of the same problem. Processing is suspended to prevent a continuous dump/IPL loop. Message U009 is displayed or the terminal detects a software error and error-recovery procedures were not successful.

User response:

- **If the terminal was in a dump/IPL loop prior to message U009**, follow “Problem data collection procedure 2” on page 356.
- **If the terminal was *not* in a dump/IPL loop prior to message U009**:
  1. Follow “Problem data collection procedure 2” on page 356.
  2. Power Off the 4683 base unit or 4693, 4694, or SurePOS 300/700 Series system unit, wait 5 seconds, and power On the terminal.
  3. The IPL counter is reset, allowing the terminal to complete the IPL.

U010 U010 LOAD FILE MISMATCH

Explanation: During terminal load, a series of files are loaded from the store controller. All of these files must be loaded from the same store controller. In order to ensure that this happens properly, the controller ID is embedded in each of the files and this ID is compared across the files. The files involved are:

- VX_TVMLZ.DAT
- VX_TINRD.DA1
- VX_TINRD.DA2

Two of these files are created after an ASM by the program ADXNSZAL.386, which runs on each store controller. A terminal which shows this message will reboot to attempt to get a complete set from the same store controller. This behavior will continue, however, if one or more of the files are damaged or are copied from some other store controller without taking the complete set.

User response: If one or more terminals is persistently reloading due to this message, it may be necessary to manually run ADXNSZAL.386 on each store controller to recreate the set.

U100 U100

Explanation: The 4693 Reference Diskette, a 4694 BIOS Update Diskette, or a SurePOS Update Diskette is loading. An activity indicator is displayed to the left of the U100 message, indicating that data is being loaded into the terminal. The activity indicator freezes when the diskette software is loaded and has control. After this, one of the following occurs, depending on the machine type:

- On a 4693 machine, the U006 message displays, followed by the U007 message. Finally, the logo panel for the Reference Diskette displays.
- On a 4694 machine, the message “Starting PC DOS...” appears on a video display, followed by “Flash BIOS Update Utility....”.
- On a SurePOS machine, the message “Starting PC DOS...” appears on a video display, followed by messages indicating the progression of the “Flash BIOS Update”.

The terminal reloads when the BIOS update is complete.

Note: Do NOT power Off the terminal during the update process. Doing so might leave the terminal in an unusable state, requiring hardware maintenance.

User response: It should take a maximum of 10 minutes for the logo screen or the “Starting PC DOS...” message to appear on the video screen. The entire process should complete within 30 minutes. If, after this time, U100 remains on the screen, or the Update Process has otherwise failed to complete and automatically re-IPL, ensure that:

1. The wiring is still intact.
2. The controller is still active.
3. A LAN-attached terminal has been properly defined at the controller on the LAN Terminal Definition panel under System Configuration.

Then, IPL the terminal to start the load again. If the problem remains after the terminal has been IPLed a few times, contact your store administrator.

U110 U110

Explanation: The image file is not a Reference Diskette image. This error can occur when the image file has been corrupted.

User response: Contact your store administrator for a valid reference diskette image file.

U111 U111

Explanation: There was an error opening the image file. This error can be caused by a missing 4693 Reference Diskette image file, a missing or incorrect logical name declared for the 4693 Reference Diskette file, or a missing 4694 or SurePOS BIOS Update Diskette image file.

User response:

- If this message occurs on a 4693 machine, check the ADX_SPGM subdirectory for the existence of the ADXRFDKF.DAT file, or check for the ADXRFDSK system logical file name in the system. It should be defined as C:\\ADX_SPGM\ADXRFDKF.DAT.
- If this message occurs on a 4694-0xx machine, check the ADX_SPGM subdirectory for the existence of the ADXRFEFF.DAT image file.
- If this message occurs on a 4694-1xx machine, check the ADX_SPGM subdirectory for the existence of the ADXRFFFF.DAT image file.
- If this message occurs on a 4694-2xx machine, check the ADX_SPGM subdirectory for the existence of the ADXRFGFF.DAT image file.
- If this message occurs on a SurePOS 700 machine, check the ADX_SPGM subdirectory for the existence of the ADXRFNFF.DAT image file.
- If this message occurs on a SurePOS 750 machine, check the ADX_SPGM subdirectory for the existence of the ADXRFPFF.DAT image file.

If these files do not exist, then either the installation or the migration has failed. Contact your store administrator.

U112 U112

Explanation: A duplicate address condition has been detected. This error occurs when two or more terminals have the same address or terminal number. Multiple terminals with the same address are not allowed to access the image file at the same time.

Terminals attempting to load the reference diskette using the same terminal address are not allowed to continue. Terminals without unique addresses must run the reference diskette to resolve hardware configuration errors before STC can be run.

User response: If more than one terminal is displaying U112, power Off all terminals, then begin running the reference diskette on one terminal at a time. Once the reference diskette has been run on a terminal, power Off that terminal, and power On another terminal.

Note: Before terminals are given unique addresses by Set Terminal Characteristics (STC), each terminal uses the same default address to load the reference diskette. This action results in duplicate addresses if more than one terminal at a time is powered On. Once terminals have unique addresses, all of them can load the reference diskette at the same time without experiencing this problem.

If this message appears on only one terminal, an address conflict exists with an active terminal. Look for a terminal displaying W006 or W400 and reference the **User Response** for that message, as well as this one, to resolve the terminal address conflict.

U113 U113

Explanation: An error occurred while reading the image file. This error can be caused by:
- A communication link error
- A controller failure
- A lobe fault

User response: Check to see if:
1. The wiring is intact.
2. A controller is still active on the TCC Network.

Then re-IPL the terminal. If a different U1*xx* message appears on the subsequent IPL, follow the instructions for the new message.

U114 U114

Explanation: A timeout has occurred while the terminal was attempting to load the Reference Diskette image on a 4693 or the BIOS Flash image on a 4694 or SurePOS terminal. The terminal timed out while attempting to make the initial TCC connection to the controller to read this file. This action is the first TCC operation and the first use of the Store ID/Terminal Number, during this type of IPL. No controller is answering the TCC requests for this Store ID/Terminal Number. The terminal re-IPLs itself after a brief period or you can re-IPL the terminal immediately.

For a 4693 terminal, successive loads can continue to give the same error message.

For a 4694 or SurePOS terminal, on the next load, the terminal does not attempt a BIOS Flash update, but attempts a normal OS load instead, alternating between a Flash attempt and a normal load on successive IPLs. The normal load might give a different error code.

User response: For a 4693 terminal, ensure that the controller is in the same LAN segment (or local ring) as the terminal. When the U114 message is displayed, press the system reset button to clear the terminal address (number). This enables the Reference Diskette to be loaded using the default address.

For a 4694 or SurePOS terminal, follow the procedure for the error code given by the normal load.

Programmer response:

1. In LAN environments, verify that the terminal has been defined as a LAN terminal controlled by the intended controller.
2. If still failing, verify that the intended controller is in the Controlling state over the LAN connection. If the controller is not in this state, you can change it to the Controlling state for just this session by pressing **Alt-SysReq, C, 3, 3**. The controller returns to the configured state on the next controller IPL. Alternately, the LANTYPE CONTROL MODE setting can be set for Automatic Resume of TCC Controlling function over the LAN on every IPL.

3. If still failing, clear the terminal's Terminal Number, and use the Set Terminal Characteristics (STC) program to reload the terminal's Terminal Number. This action also reloads the Store ID.
4. If still failing, ensure that the intended controller is in the same LAN segment (or local ring) as the terminal.
5. If still failing, follow the procedure for the error code given by the normal load.

U120 U120

Explanation:

User response: If a lobe fault occurs while the U100 message is displayed, you need to locate and correct the wiring fault. Then, IPL the terminal to restart the Reference Diskette support function.

U121 U121 000000*xx*

Explanation: An initialize adapter error occurred. The return code of the Command Control Block (CCB) for the DIR.INITIALIZE command is *xx*.

User response: Refer to *IBM LAN Technical Reference* for more information on the DIR.INITIALIZE command and the associated return codes.

System action: This is an unrecoverable error. The terminal re-IPLs itself after a brief period, or you can re-IPL the terminal immediately.

U122 U122 000000*xx*

Explanation: An open adapter error occurred. The return code of the DIR.OPEN.ADAPTER Command Control Block (CCB) is *xx*.

User response: Refer to *IBM LAN Technical Reference* for more information on the DIR.OPEN.ADAPTER command and the associated return codes.

System action: This is an unrecoverable error. The terminal re-IPLs itself after a brief period or you can re-IPL the terminal immediately.

U123 U123 000000*xx*

Explanation: An open sap error occurred. The return code of the DIR.OPEN.SAP Command Control Block (CCB) is *xx*.

User response: Refer to *IBM LAN Technical Reference* for more information on the DIR.OPEN.SAP command and the associated return codes.

System action: This is an unrecoverable error. The terminal re-IPLs itself after a brief period or you can re-IPL the terminal immediately.

U124 U124

Explanation: A set user appendage error occurred. This message is for future use.

U125 U125 000000*xx*

Explanation: A set functional address error occurred. The return code of the DIR.SET.FUNCTIONAL.ADDRESS Command Control Block (CCB) is *xx*.

User response: Refer to *IBM LAN Technical Reference* for more information on the DIR.SET.FUNCTIONAL.ADDRESS command and the associated return codes.

System action: This is an unrecoverable error. The terminal re-IPLs itself after a brief period or you can re-IPL the terminal immediately.

U126 **U126 000000*xx***

Explanation: There was a buffer free error. The return code of the BUFFER.FREE Command Control Block (CCB) is *xx*.

User response: Refer to *IBM LAN Technical Reference* for more information on the BUFFER.FREE command and the associated return codes.

System action: This is an unrecoverable error. The terminal re-IPLs itself after a brief period or you can re-IPL the terminal immediately.

U127 **U127 0000*xxxx***

Explanation: There was an adapter check error. The adapter check reason code is *xxxx*.

User response: Refer to *IBM LAN Technical Reference* for a list of LAN adapter error codes.

System action: This is an unrecoverable error. The terminal re-IPLs itself after a brief period or you can re-IPL the terminal immediately.

U128 **U128 0000*xxxx***

Explanation: There was a PC-detected error. The PC system-detected error code is *xxxx*.

User response: Refer to *IBM LAN Technical Reference* for a more information on the error codes.

System action: This is an unrecoverable error. The terminal re-IPLs itself after a brief period or you can re-IPL the terminal immediately.

U129 **U129 0000*xxxx***

Explanation: There was a network status error. The Network Status Code is *xxxx*.

User response: Refer to *IBM LAN Technical Reference* for a list of Network Status Codes.

System action: This is an unrecoverable error. The terminal re-IPLs itself after a brief period or you can re-IPL the terminal immediately.

U130 **U130 000000*xx***

Explanation: There was a data lost error. The return code of the BUFFER.FREE Command Control Block (CCB) is *xx*.

User response: Refer to *IBM LAN Technical Reference* for more information on the BUFFER.FREE command and the associated return codes.

System action: This is an unrecoverable error. The terminal re-IPLs itself after a brief period or you can re-IPL the terminal immediately.

U131 **U131 0000*xxxx***

Explanation: There were unrecoverable DLC status codes. The DLC Status Code is *xxxx*.

User response: Refer to *IBM LAN Technical Reference* for a list of DLC Status Codes.

System action: This is an unrecoverable error. The terminal re-IPLs itself after a brief period or you can re-IPL the terminal immediately.

U132 **U132**

Explanation: The maximum number of stations was exceeded. The controller has run out of resources to service this terminal.

User response: The terminal is stalled. Ensure that the controller has enough resources to service the terminal, then IPL the terminal.

U140 **U140 000000*xx***

Explanation: A store loop general failure occurred. The return code of the Loop Receive Control Block (RCB) is *xx*.

User response: The terminal re-IPLs after a brief period or you can re-IPL the terminal immediately. If the message continues to be displayed, record this error code, and pass it to the store administrator. This error code is for internal debugging only.

U150 **U150**

Explanation: The terminal is loading the Remote Terminal Utility (RTU) image.

User response: Information only. Message U155 or U151 should follow this message.

U151 **U151**

Explanation: The terminal failed to load the Remote Terminal Utility (RTU) image.

User response: The TFTP transfer of the RTU image can fail due to several reasons. Please review the RTU configuration and setup for the following common error conditions:

- Incorrect file name specified in the RTU configuration file.
- The RTU image file does not exist on the controller performing the TFTP.
- TFTP security is enabled and the RTU image file was not installed in the secure directory, /adx_boot.

U155 **U155**

Explanation: The terminal has successfully loaded the Remote Terminal Utility (RTU) image. Control is now transferred to the image.

User response: Information only.

W*nnn* messages

These messages are generated by the operating system during store operations.

W000 **W000 A SYSTEM EVENT HAS BEEN LOGGED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx***

Severity: *x*

Explanation: A system event has occurred and the event has been recorded in the System Log. Examples of system events are a power line disturbance (PLD) or loading an application program.

User response: See Table 4 on page 41.

System action: Logged as B*x*/S*xxx*/E*xxx* with unique data. See the B*x* information in Chapter 3, “System log descriptions,” on page 197.

Table 4. W000 Events

B*x*/S*xxx*/E*xxx*	Description
B2/S084/E004	Terminal IPL - A bus or storage error has occurred.
B4/S015/E001	SDLC Driver - Data was lost during a host transmit operation. Automatic retry can recover without interfering with the application. If this occurs frequently, the store programmer should alter the system to run SDLC at a lower baud rate or SDLC should be run when the store controller is not heavily loaded.
B4/S015/E004	SDLC Driver - Degraded communications because the cyclical redundancy check (CRC) error incidence exceeds the threshold (10% of all receive frames).
B4/S015/E005	SDLC Driver - Degraded communications because the retransmission incidence exceeds the threshold (10% of all transmitted I-frames).

Table 4. W000 Events (continued)

B*x*/**S***xxx*/**E***xxx*	**Description**
B4/S015/E006	SDLC Driver - A message was lost or garbled because an interrupt was not serviced in time (Receive Interrupt Overrun). Automatic retry can recover without interfering with the application. If this occurs frequently, determine which programs interfere by selectively canceling them.
B4/S015/E011	SDLC Driver - The host receive data buffer is less than 32 bits.
B4/S015/E012	SDLC Driver - The host receive data buffer is larger than the maximum allowed. Report this message to the host programmer.
B4/S016/E004	SNA Driver - Pipe read error. Report this message to the IBM Support Center for software assistance.
B4/S016/E005	SNA Driver - Host data that was not valid was received. Automatic retry can recover without interfering with the application. If this log entry appears frequently, verify that the communication network is operating correctly.
B4/S017/E003	Shared I/O Access Method - The algorithm that allocates storage for tables, during Shared I/O Access Method initialization, did not allocate the required amount of storage.
B4/S017/E005	Shared I/O Access Method - The algorithm that allocates storage for tables, during Shared I/O Access Method initialization, did not allocate the required amount of storage.
B5/S014/E001	Host Command Processor - Session initialization is complete and waiting for the first host command, or the last command is complete and waiting for the next command.
B5/S020/E100	DDA - Data Distribution has encountered an error while reading or updating an exception log. No action is needed.
B5/S020/E101	DDA - Data Distribution error recovery temporarily removed the controller from the LAN, then restored the connection.
B5/S020/E102	DDA - The controller has been activated as the Master controller.
B5/S020/E103	DDA - The controller has been deactivated as the Master controller.
B5/S020/E104	DDA - The controller has been activated as the File Server controller.
B5/S020/E105	DDA - The controller has been deactivated as the File Server controller.
B5/S030/E053	Store Controller IPL - An error occurred while attempting to update the Store Controller record in the Vital Product Data file (ADXCSCVF.DAT in the ADX_SPGM subdirectory). The error code is contained in the unique data.
B5/S057/E005	File Compression/Decompression - An error occurred when trying to set the distribution attributes or trying to distribute the decompressed file.
B5/S057/E006	File Compression/Decompression - An attempt to create a previously non-existent sub-directory failed.
B5/S057/E007	File Compression/Decompression - The C: or D: drive, or RAM DISK on the controller is full and the utility cannot operate without additional disk space. The log indicates the amount of space needed, amount left on the drive, and the name of the file in question.
B5/S057/E008	File Compression/Decompression - The C: or D: drive, or RAM DISK on the controller is full and the utility cannot operate without additional disk space. The log indicates the amount of space needed, amount left on the drive, and the name of the file in question.
B5/S064/E001	Application Loader - An automatic reload of the default program has occurred because the application ended with an error.
B5/S074/E001	Terminal Services - An error occurred while opening hard totals.
B5/S074/E002	Terminal Services - An error occurred while reading hard totals.
B5/S074/E003	Terminal Services - An error occurred while writing to hard totals.

Table 4. W000 Events (continued)

B*x*/S*xxx*/E*xxx*	Description
B5/S074/E004	Terminal Services - An error occurred while opening the Vital Product Data file.
B5/S074/E005	Terminal Services - An incorrect key was specified while opening the Vital Product Data file.
B5/S074/E006	Terminal Services - An error occurred while writing to the Vital Product Data file.
B5/S074/E018	Terminal Services - A command that was not valid was received by ADXSERVE (in a terminal).
B5/S084/E020	Terminal IPL - Configuration data for secondary applications (3270 Emulation) could not be read from hard totals. No secondary applications are started. Run STC to correct the problem.
B5/S084/E035	Terminal IPL - A terminal program requested a terminal dump.
B5/S084/E103	Error opening RAM disk list file.
B5/S084/E104	Unique data contains drive and error return code from reading RAM disk list file.
B5/S084/E105	Unique data contains drive and error return code from opening RAM disk. The identified terminal does not have a RAM disk configured or its size is too small.
B5/S084/E106	Unique data contains drive and error return code from opening input file.
B5/S084/E107	Unique data contains drive and error return code from writing RAM disk list file.
B5/S084/E109	RAM disk preload for X: or Y: was omitted because the terminal has insufficient memory.
B5/S084/E110	No IP address from DHCP.

W001 W001 OPEN LOOP - NOT BEACONING

Severity: 2

Explanation: The point-of-sale terminal is not receiving store loop communications. It is not beaconing because it does not have a terminal number. The point-of-sale keyboard OFFLINE light is on. A partner terminal displays the status of the terminal to which it is attached.

Possible causes for this message:
- The store loop is open *up-loop* from the terminal displaying message W001.
- Another terminal is failing *up-loop* from the terminal displaying message W001.
- The terminal store loop cable is failing.
- The terminal base unit is failing.
- The *primary* store controller is failing.
- The *backup* store controller is failing.
- The distance between powered-on terminals on the store loop exceeds 1220 m (4000 ft).

User response: Continue operating the terminal in offline mode and continue problem determination using “MAP 0080: W001 Message” on page 474.

System action: No logging in the store controller.

W002 W002 LOOP ADAPTER PROBLEM

Severity: 2

Explanation: A problem was detected by the point-of-sale terminal store loop adapter test or the store loop adapter failed to respond to a store loop command. A partner terminal displays the status of the terminal to which it is attached.

User response: Continue operating the terminal in offline mode and use the hardware service documentation to test the loop adapter.

System action: No logging in the store controller.

W003 W003 CONTROLLER OFF LOOP

Severity: 2

Explanation: The point-of-sale terminal is not receiving store loop communications. The terminal store loop adapter test was automatically run and it detected no problems. The terminal signaled and then received its own signal. The terminals are now signaling that the store controller is not communicating on the loop (message W003). The store loop appears to be unaffected. The OFFLINE light on the terminal keyboard is on. A partner terminal displays the status of the terminal to which it is attached.

Possible causes for this message:
- The store controller is powered off.
- The store controller is disconnected from the store loop.
- The store controller store loop cable is failing.
- This terminal is disconnected from the store loop.
- This terminal store loop cable is failing.
- The store controller is failing.
- The terminal base unit is failing.

User response: Continue operating the terminal in offline mode and continue problem determination using “MAP 0090: W003 Message” on page 485.

System action: No logging in the store controller.

W004 W004 CONTROLLER DOES NOT RESPOND

Severity: 4

Explanation: The point-of-sale terminal is receiving TCC Network communications from the store controller, but no responses are being received for messages that the terminal has sent to the store controller. The terminal keyboard OFFLINE light is on. A partner terminal displays the status of the terminal to which it is attached. The store controller can be communicating with other terminals on the TCC Network.

Possible causes for this message:
- The store loop is open *down-loop* from the terminal displaying message W004.
- A terminal is failing *down-loop* from the terminal displaying message W004.
- The terminal store loop cable is failing.
- The distance between powered-on terminals on the store loop exceeds 1220m (4000 feet).
- The *primary* store controller is failing, or has been powered Off or unplugged from the multistation access unit (MAU), or has been unplugged from the Ethernet hub.
- The *backup* store controller is failing, or has been powered Off or unplugged from the MAU, or has been unplugged from the Ethernet hub.
- The terminal base unit is failing.

User response: For loop, continue operating the terminal in offline mode and continue problem determination using “MAP 0100: W004 Message” on page 492. For additional information, refer to the appropriate documentation for your network components.

System action: No logging in the store controller.

W005 W005 OPEN LOOP - BEACONING

Severity: 2

Explanation: This point-of-sale terminal is not receiving store loop communications. The terminal store loop adapter test was automatically run and it detected no problems. This terminal is sending signals, but it is not receiving signals. The terminal keyboard OFFLINE light is on. A partner terminal displays the status of the terminal to which it is attached.

Possible causes for this message:
- The store loop is open *up-loop* from the terminal displaying message W005.
- A terminal is failing *up-loop* from the terminal displaying message W005.
- The terminal store loop cable is failing.
- The terminal base unit is failing.
- The *primary* store controller is failing.

- The *backup* store controller is failing.
- The distance between powered-on terminals on the store loop exceeds 1220m (4000 feet).

User response: Continue operating the terminal in offline mode and continue problem determination using “MAP 0110: W005 Message” on page 501.

System action: No logging in the store controller.

W006 W006 TERMINAL *xxx* IS ALREADY IN USE

Severity: 2

Explanation: This point-of-sale terminal is attempting to come online and there is another point-of-sale terminal either online or attempting to come online using the same terminal number as this terminal. The point-of-sale terminal that is online displays message W400 and any point-of-sale terminal attempting to come online displays message W006. Each point-of-sale terminal in the store must have a unique terminal number assigned to it.

User response: Verify that your terminal number is correct. The terminal number can be displayed by typing in **S1, 7, S2**.

- If your terminal number is correct:
  1. The other point-of-sale terminal must be removed from the TCC Network or its terminal number must be changed. See “Changing the Terminal Number” on page 433.
  2. Your terminal was disabled from coming online when the duplicate terminal number was detected. You must press the dump push button and immediately power Off and On the terminal again to reset the terminal. Once the terminal reloads, you can continue normal operation.
- If your terminal number is ***not*** correct, see “Changing the Terminal Number” on page 433.

System action: No logging in the store controller.

W007 W007 TERMINAL *xxx* IS BEACONING

Severity: 2

Explanation: The point-of-sale terminal is not receiving store loop communications. The terminal store loop adapter test was automatically run and it detected no problems in this terminal. This terminal was sending signals, but it stopped when it received signals from the terminal specified in this W007 message. A Mod2 terminal displays the status of its partner terminal.

Possible causes for this message:

- An open store loop *up-loop* from this terminal.
- Another terminal is failing on the store loop.
- The store controller is failing.

User response: Continue operating the terminal in offline mode and continue problem determination using “MAP 0070: Store Loop Problem” on page 473.

System action: No logging in the store controller.

W008 W008 PROGRAM IS BEING LOADED...

Severity: 5

Explanation: The application program is being loaded into this point-of-sale terminal.

User response: Wait at least 10 minutes for the application program to load. If the program does not finish loading, look at the OFFLINE light on the keyboard.

- If the OFFLINE light is on:
  1. Press **S1,** then type **2**, then press **S2** to display the OFFLINE message.
  2. Find the OFFLINE message in this chapter “Messages” and follow the procedure for the message.
- If the OFFLINE light is not on:
  1. Power Off the point-of-sale terminal, wait 5 seconds, and power On the terminal.
     - If the point-of-sale terminal stops again with message W008 displayed, follow “Problem data collection procedure 2” on page 356.

– If the point-of-sale terminal stops with a different message or symptom, use the new message or symptom to resolve the problem.

Programmer response: Review the Problem Data Collection Form, and the System Log and the dump from the problem analysis diskette.

Call the IBM Support Center for software assistance.

System action: Logged as B5/S064/E002, E003, or E004 with unique data. See the B5 information beginning on page 221.

W009 W009 DATE FORMAT IS *xxxxxx*

Severity: Variable

Explanation: The system function to display the date format has been requested (*xxxxxx* shows the date format *mmddyy* or *yymmdd*).

System action: No logging in the store controller.

W010 W010 DATE/TIME NOT CORRECT. RE-ENTER

Severity: Variable

Explanation: The date or time was not entered correctly.

User response: Enter the date or time again.

System action: No logging in the store controller.

W012 W012 TERMINAL NUMBER IS *xxx*

Severity: Variable

Explanation: The system function to display the terminal number has been requested.

System action: No logging in the store controller.

W013 W013 FREE=*xxxxxxx* **CONTIGUOUS=***xxxxxxxx*

Severity: Variable

Explanation: Display available memory has been requested.

Attention: Because of memory fragmentation, only contiguous memory can be guaranteed when an allocation of memory is requested. For terminals with free or contiguous memory greater than 99 MB, the available memory is displayed in kilobytes (KB).

Free = The amount of free memory in the point-of-sale terminal.

Contiguous = The size of the largest contiguous block of free memory in the point-of-sale terminal.

System action: No logging in the store controller.

W051 W051 PROGRAM PROBLEM

Severity: Variable

Explanation: An application program check occurred. The application program could be a user-written application, an IBM licensed product, or an IBM system application.

User response: Follow “Problem data collection procedure 4” on page 356.

Programmer response: Review the Problem Data Collection Form, the System Log, and the dump from the problem analysis diskette.

If the program check occurred in an IBM licensed product or system application program, call the IBM Support Center for software assistance.

System action: Logged as B5/S084/E036 with unique data. See the B5 information beginning on page 221.

Might log as B5/S084/E052, which is defined as an enhanced mode application program check.

W052 W052 DUMP SWITCH HAS BEEN PRESSED

Severity: Variable

Explanation: Someone has pressed the point-of-sale terminal dump switch causing a terminal storage dump and an IPL to occur.

User response: Follow the *User Response* of the message that directed you to press the dump switch.

If you were not directed to press the dump switch, continue problem determination using the hardware service documentation to test the loop adapter.

System action: Logged as B5/S084/E031 with unique data. See the B5 information beginning on page 221.

W053 W053 CONTROLLER REQUESTED DUMP

Severity: Variable

Explanation: Someone requested a terminal storage dump using the SYSTEM CONTROL FUNCTION panel at the store controller.

User response: Follow “Problem data collection procedure 4” on page 356.

Programmer response: Review the Problem Data Collection Form, the System Log, and the dump from the problem analysis diskette.

System action: Logged as B5/S084/E034 with unique data. See the B5 information beginning on page 221.

W054 W054 OPERATING SYSTEM PROBLEM

Severity: Variable

Explanation: The operating system has program checked and caused a point-of-sale terminal dump and IPL to occur.

User response: Follow “Problem data collection procedure 4” on page 356.

Programmer response: Review the Problem Data Collection Form, the System Log, and the dump from the problem analysis diskette.

Call the IBM Support Center for software assistance.

System action: Logged as B5/S084/E033, B5/S084/E045, B5/S084/E046, B5/S084/E050, B5/S084/E051, or B5/S084/E052 with unique data. See the B5 information beginning on page 221.

W055 W055 TERMINAL LOBE FAULT HAS BEEN DETECTED

Severity: 2

Explanation: The terminal token-ring cable has been unplugged from the MAU.

User response: Plug the terminal token-ring cable into the MAU.

Programmer response: Plug the terminal token-ring cable into the MAU.

System action: No logging in the store controller because the terminal cannot communicate with the controller. The OFFLINE light is on at the terminal.

W056 W056 RECOVERED FROM LOBE FAULT

Severity: 3

Explanation: The cable from the terminal’s token-ring card has been plugged back into the MAU.

User response: None

System action: Logged as B3/S078/E008. See the B3 information beginning on page 201.

W057 W057 PC FAILURE DETECTED

Severity: 2

Explanation: The terminal token-ring adapter has detected a failure in the PC adapter.

User response: If the error continues, replace the PC adapter in this terminal.

System action: Logged as B3/S078/E004. The OFFLINE light is on at the terminal. See the B3 information beginning on page 201.

W058 W058 LAN ADAPTER FAILURE DETECTED

Severity: 2

Explanation: A failure has been detected in the terminal LAN adapter.

User response: If the error continues, replace the LAN adapter in the terminal.

System action: Logged as B3/S078/E006. See the B3 information beginning on page 201.

W059 W059 MAX. NUMBER OF TERMINAL EXCEEDED

Severity: 2

Explanation: This terminal has attempted to establish communications with its controller and the controller has responded with a notice that the maximum number of terminals is already being supported by the controller.

User response: Power Off one of the other terminals being supported by the controller to which this terminal is assigned.

System action: No logging in the store controller because the operating system cannot communicate with the controller.

W060 W060 TERMINAL TOKEN-RING BEACONING

Severity: 2

Explanation: The token ring is beaconing. No data can be sent or received while the ring is beaconing.

System action: Logged as B5/S021/E001. See the B5 information beginning on page 221.

W061 W061 TERMINAL TOKEN-RING RECOVERED FROM BEACONING

Severity: 2

Explanation: The token ring has recovered from a previously reported beaconing condition and is functioning normally.

User response: None

System action: Logged as B5/S021/E011. See the B5 information beginning on page 221.

W063 W063 TERMINAL TOKEN-RING INITIALIZATION FAILURE

Severity: 2

Explanation: A failure has occurred during the terminal token-ring initialization.

The event (E*xxx*) in the message indicates the following condition:

E006 – The token-ring adapter has detected an open or short condition in the cable that connects the adapter to the multistation access unit (MAU).

E007 – The adapter has tried to connect to a token-ring that is operating at a different data rate.

E008 – The adapter has detected that another station on the token-ring has an adapter address equal to its own.

E009 – An error condition has occurred that might indicate an adapter or token-ring hardware error.

User response: Choose one of the following actions based on the event (E*xxx*) that is displayed. If the indicated actions do not correct the problem, continue problem determination using the service documentation for the token-ring adapter.

E006 – Check the cable connected to the token-ring adapter and MAU. Verify that the cable is connected properly at the adapter and MAU.

E007 – Using the diagnostic Reference Diskette for the store controller returning this error, ensure the data rate for the token-ring adapter matches that of the other token-ring adapters on the ring. Verify that all adapters on the token-ring are set to either a data rate of 4 Mbps or 16 Mbps.

E008 – Change the adapter address so that it is different from other adapters on the token-ring. This error only occurs if the adapter address has been changed by the user.

E009 – Continue problem determination using the service documentation for the token-ring adapter.

System action: Logged as B5/S021/E006, E007, E008, E009 with unique data. See the B5 information beginning on page 221.

W064 W064 CONTACTING CONTROLLER

Severity: 5

Explanation: The terminal preload code is attempting to contact the controller for this terminal in order to access preload data. This message is displayed until contact is made.

User response: This message is typically displayed for less than 15 seconds. If this message is displayed for more than one minute, follow the problem determination procedure for message W004.

W065 W065 PRELOAD FAILURE

Severity: 2

Explanation: Terminal preload failed. This message is logged as B5/S250/E*xxx* where the event code (*xxx*) depends on the specific error that caused the problem.

User response: The following events (E***xxx***) in the message indicate failures from which the user can recover.

E005 – The program was unable to initialize TCP/IP on the terminal. Make sure that the terminal is configured to use TCP/IP and was assigned an IP address (if using DHCP).

E009 – The terminal was unable to resolve the host name for the controller for this terminal. The host name is read from the file ADX_SDT1:ADXHSIHF.DAT on the controller. This error can occur if the controller cannot be contacted, if the host file is missing, or if the correct name is missing from the hosts file. A terminal will look for the name lan1.adxlx##n.adxautonet, where *##* is the id of the controller that is controlling that terminal. Normally, these host names are automatically added to the hosts file on every controller when the controller is reloaded or when roles change. If the hosts file has been modified and these names removed, the terminal preload will fail. If you are not using DHCP and are managing the host file manually, then you must either reload the controller or run the program ADXHSIZL.286 to cause the hosts file to be refreshed.

E015 – The drive letter specified in terminal configuration to be preloaded with a bundle or application is not available on this terminal. This error can happen if the configuration was set incorrectly and the drive letter does not exist on the terminal. If preloading to the C or M drives, it can be caused when either the terminal hard disk is not present or a hardware failure of the terminal hard disk occurred. If preloading to a RAM disk, the error can happen if the corresponding RAM disk was not configured for this terminal or if there is insufficient memory to allocate it.

E020 – Unable to create a directory to hold preloaded files. See event 15.

E023 or E026 – There was an error receiving a preload file or control data from the mtftp server on the controller for this terminal. This error can be caused if there was a problem starting the server. If error W689 was logged on the controller, then follow the user response for that message instead.

This error can also be caused by a communication problem between the controller and terminal after the terminal initially contacted the controller or if the controller was turned off or dumped. If the controller is still online and there are no communication problems, follow the data collection procedure for message W065.

E024 – There was an error copying a preload file from the terminal hard disk to a RAM disk. The error can be because the RAM disk is not large enough to contain the current preload file (as well as any previous data copied or extracted to it). To recover, try increasing the size of the RAM disk.

E025 – There was an error extracting the preload bundle file received from the server. This error is typically caused by the target disk not being large enough to contain the data.

E027 – There is not enough free memory in this terminal to receive a preload bundle file for expansion to a RAM disk. This error happens when the terminal does not have a hard disk and the terminal is configured to receive and

extract a bundle file to a RAM disk. In this case, the bundle file is stored in memory until the complete file is received. It is then extracted to the RAM disk and the memory is freed. To recover from this error, do one of the following: add RAM to the terminal, reduce the size of the RAM disk (if part of it is unused), or create several smaller bundles to replace the large one.

E029 – This terminal requested a preload file that was not available on the controller. Normally this only happens when the file has not been fully distributed to that controller or the file was manually deleted. If file distribution to the controller was not complete, wait until it is and then attempt to reload the terminal. If you still receive the problem or think a file may have been deleted, try rebuilding the terminal preload files as described in the *IBM 4690 OS: User's Guide*.

E030 – There was not enough room to store a preload file on this terminal. If the terminal has a hard disk, then there is not enough room on the disk for the file. To recover, free up some space on the hard disk and retry. If the terminal does not have a hard disk, then the file is an application or JVM (TOF) preload file that is being preloaded directly to a RAM disk. To recover, increase the size of the RAM disk and retry.

E032, E033, or E034 – These events indicate that the terminal requires files to be preloaded, however there was insufficient memory to run the preload code. The preload program requires between 8MB and 16MB of free memory to load and execute. If the terminal has insufficient memory to load or run the program, an error is logged. This error can occur if the terminal has insufficient total memory or if the size of the RAM disks has reduced the amount of free memory to an insufficient amount.

E038 – The configured JVM version is not supported. This is caused when Java 6 is being preloaded on a terminal configured for Classic Mode.

E048 – Cannot perform a dynamic extension update while offline. A terminal must be online when an update is performed.

E059 – An error was detected when verifying extension file contents. The most likely cause of the problem is a new extension file (ADXXT*.DAT) was copied into a controller and ADXPLDRB was not run to update the preload data files. To resolve this issue, run ADXPLDRB acting master:

- If the extension is being deployed to terminals only, run ADXPLDRB with no parameters.
- If the extension is being deployed to controllers only, run ADXPLDRB -c.
- If the extension is being deployed to both controllers and terminals, run ADXPLDRB -c -t.

The following failures are internal program failures. Follow the data collection procedure for message W065 to collect data for submission to IBM Support.

E001 – The program printed help information.
E002 – The program read an invalid command from ADX_STLD:ADXLDEXT.DAT.
E003 – The program read an invalid command argument from ADX_STLD:ADXLDEXT.DAT.
E004 – Not currently used.
E006 – Invalid value for the verbosity flag.
E007 – Invalid mtftp block size.
E008 – Invalid file cache size.
E010 – Invalid mtftp server port.
E011 – Invalid log mode value.
E012 – Invalid force flag value.
E013 – Invalid terminal number range.
E014 – Invalid or unsupported target drive letter.
E016 – Invalid preload command string.
E017 – Invalid preload filename.
E018 – Invalid logical name setting.
E019 – Unable to set a logical name.
E021 – Unable to open ADXLDEXT.DAT.
E022 – Error reading ADXLDEXT.DAT.
E028 – Error reading preload control data.
E031 – Error reading a local (previously preloaded) file from the terminal's hard disk.
E035 – Invalid flag or command in preload command file.
E036 – Error deleting file.
E037 – Invalid JVM version. The most common cause of this error is that the JVM in use is not a valid level or no JVM is running. Ensure that you are using a supported JVM and that it is active, before preloading bundles.
E039 – Error running program.
E040 – Invalid setting for file retrieval.
E041 – Internal error.
E042 – Error preparing hard disk for booting.

E043 – Error running program.
E044 – Invalid flag or command in preload command file.
E045 – Invalid flag or command in preload command file.
E046 – Error initializing extensions.
E047 – Error validating hard disk boot files.
E049 – Unable to save data before applying updates.
E050 – Internal pipe failure. Preload progress will not be displayed on the controller's boot screen.
E051 – An extension dependency file is missing.
E052 – A dependency loop was detected during the extension dependency check.
E053 – An error was detected while removing unneeded extension files.
E054 – An error was detecting while copying extension files onto the system.
E055 – An error was detected when removing extension files.
E056 – Extension initialization failed. The extension may not operate properly.
E057 – An error was detected while checking the version of installed extensions.
E058 – An error was detected during the update process.
E060 – Error registering an application (that is, Firefox) using XML configuration data.

Data Collection Procedure: If you cannot resolve the problem, perform the following steps:

1. Open a command window and run the following command. Note that the case of the "-flushLog" flag is important.
   ```
   MTFTPDPL –flushLog ADX_SPGM:MTFTPDPL.LG1
   ```
2. Collect the following files from the terminal's controller and send them to your IBM Support representative:
   - ADX_SPGM:ADXPLD*.LOG
   - ADX_STLD:ADXLDEX*.DAT
   - ADX_STLD:ADX*.LOG
   - ADX_SPGM:MTFTPDPL.LG1

W066 W066 PRELOAD SUCCESSFUL

Severity: 5

Explanation: Terminal preload processing has completed successfully. All preloaded bundles, extensions, and applications have been processed.

User response: None. This message is displayed only briefly. The next message should be W008 if a terminal application is being loaded.

W100 W100 PROGRAM CANNOT BE LOADED

Severity: 2

Explanation: The point-of-sale terminal application program cannot load. The point-of-sale terminal does not operate until the application program is loaded.

One cause of this message is the initial application program for the point-of-sale terminal cannot be found. The name of the application program that the point-of-sale terminal requires is displayed in message Z025 by Set Terminal Characteristics (STC).

This message might be logged after attempting to load an application whose code size exceeds the maximum allowed.

The event (E*xxx*) in the message indicates the following application condition:
E001 – There is no default program to load.
E002 – There is no default application defined for the 4683 Mod1 terminal.
E003 – There is no default application defined for the 4683 Mod2 terminal.
E010 – The application program has been stopped because of a programming error.
E012 – The application program cannot load.

User response: Use the following procedure to try again to load the point-of-sale terminal from the store controller.

1. Press and hold the point-of-sale terminal reset (dump) switch, then power Off the terminal.
2. Release the dump switch, wait 5 seconds, and power On the terminal.

Note: If you have a 4694 terminal, it might not have a reset switch.
If the problem persists, follow "Problem data collection procedure 6" on page 356.

Programmer response:

1. Verify that the application program can be found by checking the directory displayed in message Z025 to ensure that the initial application program is present.
   - If the program is in the directory:
     a. Review the Problem Data Collection Form and the System Log from the problem analysis diskette.
     b. Check the return code and the application program name in the unique data of the System Log entry for S064/E012.
   - If the program is not in the directory, continue problem determination using the service documentation for your point-of-sale terminal or the store controller.

System action: Logged as B5/S064/E001, E002, E003, E010, or E012 with unique data. See the B5 information beginning on page 221.

W101 W101 PROGRAM HAS BEEN CANCELED

Severity: 5

Explanation: The application was canceled by a system control function at the store controller. This point-of-sale terminal does not have an active application.

User response: Follow your store procedure to load the appropriate application.

One procedure to load an application is as follows:

1. On the store controller SYSTEM MAIN MENU panel, press **Sysreq**.
2. Type in **C** to *Access Store Control Functions* when the SYSTEM KEYS panel appears.
3. Type in **1** for *Terminal Functions* when the STORE CONTROL FUNCTIONS panel appears.
4. Type in **4** to *Start Terminal Application* when the TERMINAL FUNCTIONS panel appears.
5. Enter the appropriate information to load the appropriate application program.

System action: Logged as B5/S064/E008 or E009 with unique data. See the B5 information beginning on page 221.

W102 W102 PROGRAM CANNOT LOAD TABLES

Severity: 2

Explanation: The requested application device tables cannot load.

User response: Use the following procedure to try again to load the point-of-sale terminal from the store controller.

1. Press and hold the point-of-sale terminal dump switch, then power Off the terminal base unit.
2. Release the dump switch, wait 5 seconds, and power On the terminal base unit.
   If the problem persists, follow “Problem data collection procedure 6” on page 356.

Programmer response: Review the Problem Data Collection Form and the System Log from the problem analysis diskette.

Check the return code and the application program name in the unique data of the System Log entry for S064/E011 or S084/E099.

System action: Logged as B5/S064/E011 or B5/S084/E099 with unique data. See the B5 information beginning on page 221.

W103 W103 PROGRAM PROBLEM DEFAULT LOADING...

Severity: 2

Explanation: The application program has been stopped because of a programming error. The default program load has been initiated. The system is still running. No program dump was taken because of system configuration.

This message might be logged after attempting to load an application whose code size exceeds the maximum allowed.

User response: After the default program has loaded, repeat the operation that caused this message.

If the problem persists, follow “Problem data collection procedure 7” on page 357.

Programmer response: Review the Problem Data Collection Form and the System Log from the problem analysis diskette.

Note: The system can be reconfigured to allow a program dump to be taken.

System action: Logged as B5/S064/E010 with unique data. See the B5 information beginning on page 221.

W104 W104 FAILURE OF DEFAULT PROGRAM...

Severity: 2

Explanation: The application default program has been stopped because of a programming error. The system is still running. No program dump was taken because of system configuration.

User response: Follow “Problem data collection procedure 7” on page 357.

Programmer response: Review the Problem Data Collection Form and the System Log from the problem analysis diskette.

Note: The system can be reconfigured to allow a program dump to be taken.

System action: Logged as B5/S064/E014 with unique data. See the B5 information beginning on page 221.

W105 W105 JAVA PROGRAM BEING LOADED...

Severity: 5

Explanation: The Java program has been loaded.

User response: None.

System action: Logged as B5/S064/E021. See the B5 information beginning on page 221.

W106 W106 JAVA PROGRAM HAS ENDED

Severity: 5

Explanation: The Java program has ended.

The event (E*xxx*) in the message indicates the following application condition:

E022 – The Java program ended normally.

E023 – A Java Class Not Found Exception occurred.

E024 – A Java Illegal Access Exception occurred.

E025 – A Java Instantiation Exception occurred.

E026 – A Java NoSuchMethod Exception occurred.

E027 – A Java Invocation Target Exception occurred.

E028 – A Java Invalid Parameter Exception occurred.

E029 – A Java Flexos Exception occurred.

User response: Correct the cause of the Exception logged in the event number and reload your application.

System action: Logged as B5/S064/E022, E023, E024, E025, E026, E027, E028, or E029. See the B5 information beginning on page 221.

W200 W200 FUNCTION NUMBER NOT VALID. RETRY

Severity: Variable

Explanation: Someone has entered a system function number that is not valid.

User response: Enter the system function using the correct number.

System action: No logging in the store controller.

W201 W201 REQUEST VALID ONLY WHEN IN DEBUG

Severity: Variable

Explanation: Debug must be active in the point-of-sale terminal for the requested system function to be valid. The requested system function was not performed.

User response: Load debug and enter system function.

System action: No logging in the store controller.

W203 W203 SET DATE/TIME ONLY WHEN OFFLINE

Severity: Variable

Explanation: A system function was selected to set the date or time, but the point-of-sale terminal is not offline. This system function is only allowed when the point-of-sale terminal is offline.

User response: Verify that the offline light on the display is on before requesting this system function.

System action: No logging in the store controller.

W204 W204 NO SYSTEM MESSAGE AVAILABLE

Severity: Variable

Explanation: This message marks the end of the system message queue in the point-of-sale terminal. When message W204 is displayed, you have displayed all the messages in the queue.

User response: If you continue to display messages after W204 is displayed, the message queue repeats. The first message in the queue displays again.

System action: No logging in the store controller.

W205 W205 STORAGE RETENTION ENABLED

Severity: Variable

Explanation: This message is displayed in response to the key sequence of S1, 7, 2, S2, which produces a System Function request (enable storage retention). It indicates that storage retention has been ENABLED.

User response: None

System action: No logging in the store controller.

W206 W206 STORAGE RETENTION DISABLED

Severity: Variable

Explanation: This message is displayed in response to the key sequence of S1, 7, 3, S2, which produces a System Function request (disable storage retention). It indicates that storage retention has been DISABLED.

User response: None

System action: No logging in the store controller.

W207 W207 TOUCH HERE FOR PRIMARY DISPLAY

Severity: Variable

W208 W208 TWO TOUCH DISPLAYS NOT FOUND

Severity: Variable

W300 W300 DEVICE CHANNEL ADAPTER PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the point-of-sale terminal. All devices attached to the terminal are likely to be affected.

User response: Use the hardware service documentation for your point-of-sale terminal to test the device channel adapter.

System action: Logged as B2/S082/E001 with unique data. See the B2 information beginning on page 199.

W301 W301 CASH DRAWER HARDWARE PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the cash drawer.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the cash drawer.

System action: Logged as B2/S094/E001 with unique data. See the B2 information beginning on page 199.

W302 W302 TOTAL RETENTION HARDWARE PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in totals retention.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the system board.

System action: Logged as B2/S114/E001 or E017 with unique data. See the B2 information beginning on page 199.

W303 W303 KEYBOARD/TONE HARDWARE PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the keyboard or tone.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the keyboard.

System action: Logged as:
- B2/S091/E001 by the Matrix keyboard
- B2/S092/E001 by the 50-key keyboard
- B2/S093/E001 by the Alphanumeric or ANPOS keyboard
- B2/S091/E050 by the Modifiable Layout Keyboard with Card Reader
- B2/S092/E050 by the Retail Point-of-Sale Keyboard, Retail Point-of-Sale Keyboard with Card Reader, or Retail Point-of-Sale Keyboard with Card Reader and Display
- B2/S093/E050 by the Retail Point-of-Sale Alphanumeric Keyboard with Card Reader

See the B2 information beginning on page 199.

W304 W304 PRINTER HARDWARE PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the printer.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the printer.

System action: Logged as B2/S090/E001 with unique data.

For the Model 3 or Model 4 printer, logged as B2/S090/E041 with unique data. See the B2 information beginning on page 199.

W305 W305 PRINT HEAD CARRIER PROBLEM

Severity: 2

Explanation: Incorrect print head motion has been detected.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the printer.

System action: Logged as B2/S090/E020 with unique data.

For the Model 3 or Model 4 printer, logged as B2/S090/E061 with unique data. See the B2 information beginning on page 199.

W306 W306 ALPHANUMERIC DISPLAY PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the display on the combined keyboard/display.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the display.

System action: Logged as B2/S095/E001. See the B2 information beginning on page 199.

W308 W308 MSR HARDWARE PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the MSR.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the keyboard and card reader.

System action: Logged as B2/S108/E001 or B2/S109/E001 with unique data. See the B2 information beginning on page 199.

W309 W309 BAR CODE READER HARDWARE PROBLEM

Severity: 4

Explanation: A hardware problem has been detected in the IBM 4685 Hand-Held Bar Code Reader Model 001 or 002.

The event (E*xxx*) in the message indicates the following:

E001 – An attempt was made to reset the IBM 4685 Hand-Held Bar Code Reader Model 001 or 002, but the response to this attempt was not received.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the bar code reader.

System action: Logged as B2/S124/E001 with unique data. See the B2 information beginning on page 199.

W310 W310 SERIAL PORT ADAPTER PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the Feature Expansion card in location 2A on the 4683.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the feature expansion card.

System action: Logged as B2/S118/E001 with unique data. See the B2 information beginning on page199.

W311 W311 OCR HARDWARE PROBLEM

Severity: 4

Explanation: A hardware problem has been detected in the Feature Expansion card in location 2A. This message is issued for the OCR device or the IBM 1520 Hand-Held Scanner Model A01 (1520-A01).

The event (E*xxx*) in the message indicates the following activity occurred:

E001 – An attempt was made to reset the device but the response to this attempt was not received.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the feature expansion card.

System action: Logged as B2/S102/E001 with unique data. See the B2 information beginning on page 199.

W312 W312 CHECKOUT SCANNER PROBLEM

Severity: 4

Explanation: A hardware problem has been detected in the Point-of-Sale Scanner. This message might occur after a power-management event.

The event (E*xxx*) in the message indicates the following activity occurred:

E001 – An attempt was made to reset the scanner but the response to this reset was not received.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the scanner.

System action: Logged as B2/S104/E001 with unique data. See the B2 information beginning on page 199.

W313 W313 1520-A02 SCANNER PROBLEM

Severity: 4

Explanation: A hardware problem has been detected in the IBM 1520 Hand-Held Scanner Model A02 (1520-A02). This message might occur after a power-management event.

The event (E*xxx*) in the message indicates the following activity occurred:

E001 – An attempt was made to reset the IBM 1520 Hand-Held Scanner Model A02 (1520-A02), but the response to this attempt was not received.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the 1520-A02.

System action: Logged as B2/S122/E001 with unique data. See the B2 information beginning on page 199.

W314 W314 MAG WAND HARDWARE PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the Feature Expansion card for the magnetic wand.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the feature expansion card.

System action: Logged as B2/S120/E001. See the B2 information beginning on page 199.

W315 W315 REDUCED RAM DISK CAPACITY

Severity: 4

Explanation: The RAM disk that was installed on the point-of-sale terminal has less storage than the amount specified in the configuration. This occurred because the terminal does not have enough storage to create a RAM disk using the configured amount.

Programmer response: Note the amount of storage actually allocated (logged) and construct files with this amount in mind.

System action: Logged as B5/S125/E001. See the B5 information beginning on page 221.

W316 W316 SERIAL PORT ADAPTER PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the Feature Expansion card in location 2B on the 4683.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the feature expansion card.

System action: Logged as B2/S118/E001 with unique data. See the B2 information beginning on page 199.

W317 W317 OCR HARDWARE PROBLEM

Severity: 4

Explanation: A hardware problem has been detected in the Feature Expansion card in location 2B. This message is issued for the OCR device or the IBM 1520 Hand-Held Scanner Model A01 (1520-A01).

The event (E*xxx*) in the message indicates the following activity occurred:

E001 – An attempt was made to reset the device but the response to this attempt was not received.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the feature expansion card.

System action: Logged as B2/S102/E001 with unique data. See the B2 information beginning on page 199.

W318 W318 REQUIRED DEVICE PROBLEM - TONE

Severity: 2

Explanation: The I/O processor has stopped because it cannot successfully open the tone (keyboard).

User response: Ensure the keyboard you have configured for this terminal is the one attached to this terminal. If the device ID of the configured keyboard does not match the device ID of the attached keyboard, then this message is displayed. For a list of terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

If the attached keyboard is the configured keyboard, then continue problem determination using the hardware service documentation to test the keyboard.

System action: Logged as B5/S070/E001. See the B5 information beginning on page 221.

W319 W319 OPTIONAL DEVICE PROBLEM - OCR WAND

Severity: 3

Explanation: The I/O processor is operating in a degraded mode because it cannot successfully open a configured device. This message is also issued for the 1520 Hand-Held Scanner Model A01.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the OCR wand.

System action: Logged as B5/S070/E003. See the B5 information beginning on page 221.

W320 W320 KEYBOARD MUST BE CONFIGURED

Severity: 2

Explanation: The I/O processor has stopped because the point-of-sale keyboard driver is not configured.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Configure the point-of-sale terminal with a keyboard.

System action: Logged as B5/S070/E004. See the B5 information beginning on page 221.

W321 W321 PROCESSING... WAIT FOR PROMPT

Severity: Variable

Explanation:
- If the point-of-sale terminal keyboard WAIT light is on, the application is not ready for I/O processor input.
- If the point-of-sale terminal keyboard WAIT light is *not* on, the message indicates the reason for the last wait condition.

User response:
- If the point-of-sale terminal keyboard WAIT light is on, wait for a prompt message from the application.
- If the point-of-sale terminal keyboard WAIT light is *not* on, press **S1,**, then **S2**, and then resume normal operations.
- If W321 remains on the panel, follow “Problem data collection procedure 2” on page 356.

Programmer response: Review the Problem Data Collection Form, the System Log, and the dump from the problem analysis diskette.

If the program check occurred in an IBM licensed product or system application program, call the IBM Support Center for software assistance.

System action: No logging in the store controller.

W322 W322 COIN HARDWARE PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the Feature Expansion card for the coin dispenser.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the feature expansion card.

System action: Logged as B2/S112/E001. See the B2 information beginning on page 199.

W323 W323 SCALE HARDWARE PROBLEM

Severity: 2

Explanation: A hardware problem has been detected in the scale adapter.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the scale adapter.

System action: Logged as B2/S110/E001, E006, or E016. See the B2 information beginning on page 199.

W324 W324 REQUIRED DEVICE PROBLEM - DISPLAY

Severity: 2

Explanation: The I/O processor has stopped because it cannot successfully open the point-of-sale terminal display.

Note: This problem can be caused by the point-of-sale terminal display being plugged into the wrong socket.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the display.

System action: Logged as B5/S070/E002. See the B5 information beginning on page 221.

W325 W325 OPTIONAL DEVICE PROBLEM - SCANNER

Severity: 3

Explanation: The I/O processor is operating in a degraded mode because it cannot successfully open a configured Point-of-Sale Scanner.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the scanner.

System action: Logged as B5/S070/E007. See the B5 information beginning on page 221.

W326 W326 DISPLAY MUST BE CONFIGURED

Severity: 2

Explanation: The I/O processor has stopped because the point-of-sale terminal display driver is not configured.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Configure the point-of-sale terminal with a display.

System action: Logged as B5/S070/E005. See the B5 information beginning on page 221.

W327 W327 OPTIONAL DEVICE PROBLEM - MAG WAND

Severity: 3

Explanation: The I/O processor is operating in a degraded mode because it cannot successfully open a configured magnetic wand.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the mag wand.

System action: Logged as B5/S070/E008. See the B5 information beginning on page 221.

W328 W328 VIDEO PROBLEM CARD 2A

Severity: 2

Explanation: A hardware problem has been detected in the video display Feature Expansion card in location 2A on the 4683.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the video adapter card.

System action: Logged as B2/S098/E001. See the B2 information beginning on page 199.

W329 W329 DISPLAY PROBLEM SOCKET 4A/5A OR USB

Severity: 2

Explanation: A hardware problem has been detected in the display attached to socket 4A/5A or USB.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the display.

System action: Logged as:
- B2/S095/E001 by the Operator display
- B2/S096/E001 by the Alphanumeric display
- B2/S097/E001 by the Shopper display

See the B2 information beginning on page 199.

W330 W330 VIDEO PROBLEM CARD 2B

Severity: 2

Explanation: A hardware problem has been detected in the video display Feature Expansion card in location 2B on the 4683.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the video adapter card.

System action: Logged as B2/S098/E001. See the B2 information beginning on page 199.

W331 W331 DISPLAY PROBLEM SOCKET 4B 9A/B/C/E or USB

Severity: 2

Explanation: A hardware problem has been detected in the display attached to socket 4B, 9A/B/C/E or USB.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the display.

System action: Logged as:
- B2/S095/E001 by the Operator display
- B2/S096/E001 by the Alphanumeric display
- B2/S097/E001 by the Shopper display

See the B2 information beginning on page 199.

W335 W335 3270 CONFIG. FILE INCOMP. OR INV.

Severity: 3

Explanation: The configuration file that contains character code conversion tables and operator guidance messages is incomplete or contains data that is not valid.

The event (E*xxx*) in the message indicates the following:

E010 – The file is incomplete.

E020 – The return code (RC=) is from file services and indicates an I/O operation.

E021 – The return code indicates the line number in the file containing configuration data that is not valid.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Correct the configuration file that contains the tables and messages.

System action: Logged as B3/S069/E010, E020, or E021. See the B3 information beginning on page 201.

W336 W336 3270 CANNOT OPEN CONFIG. FILE

Severity: 3

Explanation: The configuration file does not exist or it is on media that cannot be accessed. Also, there might be too little RAM disk defined.

This message can be logged if you do not have the logical names SDX2NODE and SDX2LINK defined properly for the controllers on which you intend to run 3270 Emulation. It also can be logged if you are trying to run 3270 Emulation in the 4683 terminal and there is insufficient RAM disk space configured for drive T:, or if the background program (ADXHSK0L) is not running. For configuration information, see the *IBM 4690 OS: User's Guide*.

User response: Ensure that the node that contains the configuration file is active, then retry the operation. If the retry is unsuccessful, follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the return code (RC=) in the message. If you are trying to run 3270 emulation in the terminal, verify that sufficient RAM disk space is configured and available. Refer to the *IBM 4690 OS: Planning, Installation, and Configuration Guide* for information on 3270 emulation support.

System action: Logged as B3/S069/E011. See the B3 information beginning on page 201.

W338 W338 3270 EMULATION DETECTED ERROR

Severity: 3

Explanation: An internal error occurred in 3270 emulation.

User response: The 3270 emulation continues and no user action is required in many cases. If the first eight characters of the unique data are 0C03BA01, check to see if the Proprinter* is jammed or out of paper. Otherwise, check to see if the emulation is still running. If it is not, attempt to restart the emulation and reestablish the host session. If the emulation does not restart, follow “Problem data collection procedure 1” on page 355. If the emulation restarts but the host session cannot be established, it might be necessary to restart the print job at the host.

Programmer response: Take action based on return code 2503xxxx if it appears in characters 1 through 4 of the unique data. This code indicates a problem in an application program using the 3270 API.

System action: Logged as B3/S069/E015 or E024. See the B3 information beginning on page 201.

W339 W339 3270 EMULATION CAN'T ACCESS OS TBL.

Severity: 3

Explanation: 3270 emulation cannot GET/SET a required operating system table.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Take action based on the return code (RC=) in the message.

System action: Logged as B3/S069/E016. See the B3 information beginning on page 201.

W340 W340 3270 EMULATION ERROR READING KYBD

Severity: 3

Explanation: 3270 emulation cannot read the keyboard.

User response: 3270 emulation continues and no user response is required.

System action: Logged as B3/S069/E017. See the B3 information beginning on page 201.

W341 W341 3270 EMULATION CANNOT ACCESS SCREEN

Severity: 3

Explanation: 3270 emulation cannot write or copy data to the panel.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Take action based on the return code (RC=) in the message.

System action: Logged as B3/S069/E019. See the B3 information beginning on page 201.

W342 W342 3270 COMMAND TAIL INVALID

Severity: 3

Explanation: The command tail configured in the terminal load definition is not in the correct format.

User response: Reconfigure the command tail. If the problem persists, follow "Problem data collection procedure 1" on page 355.

System action: Logged as B3/S069/E001. See the B3 information beginning on page 201.

W344 W344 3270 EMULATION ERR WRITING TO PRNT

Severity: 3

Explanation: 3270 emulation cannot open or write to the printer.

User response: Ensure the printer is powered On. (3270 emulation continues running.)

System action: Logged as B3/S069/E018. See the B3 information beginning on page 201.

W345 W345 3270 ERR. READ /WRITE TO API PIPE

Severity: 3

Explanation: An I/O error occurred on one of the API pipes while 3270 emulation was under application control. The return code is the file system return code.

User response: Ensure that no other 3270 emulation sessions are using the same session identifier.

System action: Logged as B3/S069/E022. See the B3 information beginning on page 201.

W346 W346 3270 ERROR CREATING API PIPE

Severity: 3

Explanation: An error occurred while 3270 emulation was initializing because 3270 emulation could not create pipes for API use. The 3270 emulation continues so that it can be used by the operator, but can never be accessed by applications. The return code is the I/O system return code caused by the CREATE.

User response: Ensure that no other 3270 emulation sessions are using the same session identifier.

System action: Logged as B3/S069/E023. See the B3 information beginning on page 201.

W347 W347 3270 ERR. COMM. WITH CONTROLLER

Severity: 3

Explanation: 3270 emulation on a terminal has encountered an error in communicating with the TCC Network controller.

The event (E*xxx*) in the message indicates the following error:

E025 – A PRS read pipe error occurred.
E026 – A PRS write pipe error occurred.
E027 – A read of the buffer pool file failed.
E028 – A write of the buffer pool file failed.
E029 – The connection to the store controller was broken.
E030 – The retry limit to get the buffer was exceeded.
E031 – The connection to the store controller was not established.

User response: Take one of the following actions based on the event (E*xxx*) that is displayed:

E025, E26, E027, E028 or E029 – If the problem persists, call the IBM Support Center for software assistance.
E030 – Enlarge RAM disk T and increase the number of buffers specified in the ADXHSK0L parameter on the TCC Network controller.
E031 – Ensure that the TCC Network controller has a RAM disk, T, and that the buffer background application, ADXHSK0L, is configured.

System action: Logged as B3/S069/E025 through E031. See the B3 information beginning on page 201.

W348 W348 3270 PRINTER SESSION ACTIVE

Severity: 4

Explanation: 3270 printer emulation on the terminal has established a logical unit (LU) session with the host system.

User response: This is an informational message. The absence of this message in the log could explain why no print output was received.

System action: Logged as B3/S069/E000. See the B3 information beginning on page 201.

W349 W349 3270 PRINTER PRINTING

Severity: 4

Explanation: 3270 printer emulation on the terminal has begun a print job.

User response: This is an informational message.

System action: Logged as B3/S069/E000. See the B3 information beginning on page 201.

W351 W351 3270 PRINTER SESSION ENDED

Severity: 4

Explanation: 3270 printer emulation on the terminal has lost its systems network architecture (SNA) LU session.

User response: Check the store controller event log for unusual SNA events and take appropriate action. Restart the 3270 printer emulation by reloading the 3270 printer emulation application.

System action: Logged as B3/S069/E000. See the B3 information beginning on page 201.

W352 W352 3270 PRINTER SESSION STARTING

Severity: 5

Explanation: 3270 printer emulation on the terminal is initializing. Every configured terminal running 3270 printer emulation logs this message.

User response: This is an informational message. If this message is not logged for a particular terminal, then that terminal has not been configured correctly or has failed to initialize.

System action: Logged as B3/S069/E000. See the B3 information beginning on page 201.

W354 W354 PRINTER JOURNAL BUFFER EXCEEDED

Severity: 2

Explanation: The amount of data being buffered exceeds the size of the buffer.

User response: Change the journal buffer size in the terminal device group for the terminal that logged this error.

System action: Logged as B3/S090/E041. See the B3 information beginning on page 201.

W355 W355 PRINTER MODELS DO NOT MATCH

Severity: 2

Explanation: The printer model attached to the Mod2 terminal must be the same model as that attached to the partner terminal. If the printer models are not the same, this error is logged at both the store controller and the Mod2 terminal. The check of printer models is performed during terminal IPL, so this message is logged at that time only.

User response: Replace the printer on the Mod2 terminal with the same model of printer that is attached to the partner terminal.

System action: Logged as B3/S084/E006. See the B3 information beginning on page 201.

W356 W356 WRONG KEYBOARD TYPE CONFIGURED

Severity: 2

Explanation: The keyboard attached to this terminal does not match the configured keyboard type.

User response: See “Format 74” on page 264 to determine the type of keyboard that is attached.

If the attached keyboard matches your terminal configuration, be sure your terminal configuration has been activated and has been loaded into the terminal using the Set Terminal Characteristics (STC) program.

If the attached keyboard does not match your terminal configuration, then either:
- Reconfigure the terminal device group and terminal load definition for your terminal to use the attached keyboard
- Activate the new terminal configuration
- Load the new terminal configuration into your terminal using STC

-Or-

Switch your attached keyboard to the configured keyboard.

System action: Logged as:
- B2/S091/E055 by the Modifiable Layout Keyboard with Card Reader
- B2/S092/E055 by the Retail Point-of-Sale Keyboard, Retail-Point-of Sale Keyboard with Card Reader, or Retail-Point-of Sale Keyboard with Card Reader and Display
- B2/S093/E055 by the Retail Point-of-Sale Alphanumeric Keyboard with Card Reader

See the B2 information beginning on page 199.

W357 W357 TOUCH HARDWARE PROBLEM

Severity: Variable

Explanation: A touch hardware event has occurred.
The event (E*xxx*) in the message indicates the following error:

E001 – The touch screen has failed to send a request-on-line (ROL) in response to a Reset command from the touch driver.

E002 – The touch screen has rejected a Reset command from the touch driver.

E003 – The touch screen has sent an unsuccessful acknowledgment in response to a resolution command from the touch driver for the second time.

E004 – The touch screen has sent status that does not match the configure command from the touch driver for the second time.

After issuing this message the touch driver is in an offline state. Offline status is reported and the offline return code is returned. The touch driver remains in an offline state until a ROL is received from the touch screen.

User response: Continue problem determination using the hardware service documentation for your touch screen.

System action: Logged as B2/S101/E001, E002, E003, or E004 with unique data. See the B2 information beginning on page 199.

W358 W358 TERMINAL TCP/IP NOT LOADED

Severity: 2

Explanation: TCP/IP drivers for this terminal were not loaded. The event (E100) indicates that TCP/IP is not supported in store loop attached terminals.

User response: Correct the terminal configuration.

System action: Logged as B5/S084/E100. See the B5 information beginning on page 221.

W359 W359 TERMINAL JAVA SUPPORT NOT LOADED

Severity: 2

Explanation: Java support for this terminal was not loaded. The event (E101) indicates that Java is not supported in store loop attached terminals.

User response: Correct the terminal configuration.

System action: Logged as B5/S084/E101. See the B5 information beginning on page 221.

W360 W360 GRAPHICS ERROR

Severity: 3

Explanation: Graphics cannot start.
The event (E*xxx*) in the message indicates the following:

E101 – Java graphics has not been configured.

E105 An error has occurred during graphics initialization.

E106 The video adapter does not support VESA BIOS Extensions (VBE).

E107 The video adapter does not support the minimum graphics mode required to support 4690 graphics.

E108 An error has occurred trying to obtain the graphics configuration information.

User response: Use the following event information to help correct the problem.

E101 Ensure you have configured Java graphics.

E105 Attempt to dump the affected controller or terminal and contact IBM support.

E106 Ensure that you are using a controller or terminal with a video adapter that supports VESA BIOS Extensions (VBE).

E107 Ensure that you are using a controller or terminal with a video adapter that supports the minimum graphics mode (640x480, 256 colors) required to support 4690 graphics.

E108 Attempt to dump the affected controller or terminal and contact IBM support.

System action: Logged as B3/S074/E101, E105, E106, E107, or E108. See the B3 information beginning on page 201.

W361 W361 GRAPHICS INFORMATION

Severity: 3

Explanation: A graphics informational message.
The event (E*xxx*) in the message indicates the following:

E104 – The configured graphics mode is not supported by the video adapter. A graphics mode with the resolution configured has been attempted with the next number of colors less than what was configured. If the configured resolution was not supported with any number of supported colors, then a graphics mode with the next lower resolution and the number of colors configured has been attempted.

E109 – *(4690 Classic systems only)* The video system does not support graphics modes with 256 colors. A graphics mode with 64K colors and the configured graphics resolution will be used.

E120 – Graphics information only.

User response: Use the following event information to help correct the problem.

E104 Be aware that the graphics mode in use is different than the graphics mode configured.

E109 – Be aware that the graphics mode in use is different than the graphics mode configured.

E120 No user response is required.

Programmer response: Use unique data “Format 80” on page 265 to determine the graphics mode in use for your system.

System action: Logged as B3/S074/E104 or E120 with unique data. See the B3 information beginning on page 208.

W362 W362 JAVA I/O PROCESSOR ERROR

Severity: 1

Explanation: The Java I/O processor or Java user interface has encountered an unexpected error. A diagnostic file has been produced.

User response: Retry the operation.

Programmer response: Respond based on the contents of the diagnostic trace file.

System action: A diagnostic trace file was written to subdirectory ADX_SDT1 on the controller hard disk drive where the operating system is installed. The trace file name is trace*xxx.yyy* where:

xxx = the terminal ID
yyy = a rolling count that starts with 000. The rolling count ID matches the unique data in the system event log.

Logged as B5/S070/E020. See the B5 information beginning on page 221.

W363 W363 NFS CLIENT NOT LOADED

Severity: 2

Explanation: The error has occurred due to unsucessful NFS client manager installation or a terminal configuration file problem.

System action: Logged as B5/S084/E102 with unique data The event E102 indicates that NFS client manager is not loaded. See the B5 information beginning on page 221

W364 W364 FONT FILE DID NOT DOWNLOAD TO PRINTER

Severity: 3

Explanation: The error has occurred because the font file did not download to the printer.

User response: Use the font download utility to download the font image to the printer.

System action: Logged as B2/S090/E035 without unique data.

W365 W365 READ ADXNLCPF.DAT ERROR

Severity: 2

Explanation: Cannot find ADXNLCPF.DAT or reading error at the terminal.

User response: Ensure the terminal has the ADXNLCPF.DAT file.

System action: Logged as B5/S084/E002 without unique data.

W366 W366 BOOT LOADER/OS VERSION MISMATCH

Severity: 2

Explanation: The terminal is on a network that has 4690 controllers that are running different releases. The bootstrap could load from one controller and the Operating System from the other.

User response: The terminal should be isolated on the network to the controller you want it to load from.

System action: Logged as B5/S084/E108 without unique data.

W367 W367 TERMINAL TCP/IP NOT INITIALIZED

Severity: Varies

Explanation: The terminal is unable to get an IP address from the DHCP server and cannot initialize the TCP/IP protocol. If TCP/IP is critical to terminal operations, such as TCC is using IP, this message is displayed on the terminal's System Display and the terminal waits for a DHCP server to service the request. If a DHCP server becomes available and provides the terminal with an IP address, the message disappears and normal terminal IPL continues. If TCP/IP is not critical to terminal operations, this message is logged in both the terminal message queue and on the controller, then the terminal IPL continues without initializing TCP/IP. In this case, TCP/IP is unavailable on the terminal and when a DHCP server is available, the terminal must be rebooted to initialize TCP/IP.

User response: Verify that the DHCP server is running on a 4690 controller on this LAN and that the DHCP configuration is correct for your environment. Verify that the terminal is connected to the LAN running the DHCP server and that the LAN is operational.

System action: Can be logged as B5/S084/E110 without unique data, if TCP/IP is not critical for terminal IPL. Otherwise, the message is displayed on the terminal System Display until the situation is corrected. See the B5 information beginning on page 221.

W368 W368 OS LOAD TYPE MISMATCH

Severity: 1

Explanation: The terminal has been configured to run in a mode (Classic or Enhanced) that is not supported by that terminal hardware.

User response: Verify that the terminal machine type is capable of running in the mode (Classic or Enhanced) for which it was configured. Verify that the terminal has sufficient memory to run in the selected mode. If the problem persists, contact your IBM Service Representative.

System action: Logged as B5/S084/E111. See the B5 information beginning on page 221.

W400 W400 TERMINAL NUMBER CONFLICT

Severity: 2

Explanation: This terminal is online. Another terminal is attempting to come online with the same terminal number as this terminal. The terminal attempting to come online displays message W006 or message W400. Each terminal in the store must have a unique terminal number assigned to it.

User response: Verify that your terminal number is correct. (The terminal number can be displayed by pressing **S1**, then typing in **7**, then pressing **S2**.)

If your terminal number is correct:
- You can continue normal operation.
- The other terminal must be removed from the TCC Network or its terminal number must be changed.
- To change the number:
  1. Reset the number by using "Resetting the Terminal Number to Zero" on page 434.
  2. Enter the correct terminal number when prompted by message Z001.

If your terminal number is *not* correct:
1. Terminate the sales application if one is running. Refer to your store procedures.
2. Reset the number by using "Resetting the Terminal Number to Zero" on page 434.
3. Enter the correct terminal number when prompted by message Z001.

System action: Logged as B5/S080/E038 with unique data. See the B5 information beginning on page 221.

W401 W401 TERMINAL STORE LOOP ADAPTER EVENT

Severity: Variable

Explanation: A terminal store loop adapter event has occurred.

The event (E*xxx*) in the message indicates the following:

E016 – There are no more message buffers available.
E023 – An event was detected and reported by the terminal store loop adapter.
E024 – An event was detected and reported by the terminal store loop adapter.

User response: Continue problem determination using the hardware service documentation for your Store Loop Adapter.

System action: Logged as B3/S080/E016, E023, or E024 with unique data. See the B3 information beginning on page 201.

W402 W402 TERMINAL DEVICE CHANNEL OR USB EVENT

Severity: Variable

Explanation: A terminal device channel or USB event has occurred.

The event (E*xxx*) in the message indicates the following:

E020 – Error status was received from the terminal device channel adapter processor.
E021 – Send/Receive count error (Set Normal Response Mode).
E022 – Retransmits exceeded 5%.
E023 – The terminal device channel adapter processor diagnostic tests failed.
E024 – The shared buffer was not available after installation.
E030 – There was a USB host controller error.
E031 – The USB resources were exceeded.
E032 – There was a USB device enumeration error.
E033 – A USB device flashing event occurred.
E034 – A USB event occurred.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the device channel or USB.

System action: Logged as:

System Log Section	Source	Event
B3	S082	E020
B3	S082	E021

B3	S082	E022
B3	S082	E023
B3	S082	E024
B1, B2	S083	E030
B3, B4	S083	E031
B1, B2	S083	E032
B2, B3	S083	E033
B1, B2, B3, B4	S083	E034

See the information in Chapter 3, “System log descriptions,” on page 197.

W403 W403 TERM. PRINTER ERR. HAS OCCURRED

Severity: Variable

Explanation: A terminal printer event has occurred.
The event (E*xxx*) in the message indicates the following error:
E010 – An error was reported by the printer power-on self-test (POST).
E011 – An unexpected ROL was received.
E013 – An operation timeout occurred.
E014 – The printer did not acknowledge a command.
E015 – A command reject was received when the printer cover closed.
E021 – A print head home error was reported.
E022 – There is insufficient memory to create the journal buffer.
E023 – An error occurred while downloading special characters.
E042 – An unexpected ROL was received by the fiscal driver.

Note: The following events, **E050** through **E063** pertain to the Model 3 or Model 4 printer.
E050 – An error was reported by the printer power-on self-test (POST).
E051 – An unexpected ROL was received.
E053 – An operation timeout occurred.
E054 – The printer did not acknowledge a command.
E055 – A command reject was received when the printer cover closed.
E061 – A print head home error was reported.
E062 – There is insufficient memory to create the journal buffer.
E063 – An error occurred while downloading special characters.
E252 An error occurred while writing to the user flash EPROM area. This error can occur because of a prior erase of the sector failed or there was an attempt to write to the same address twice.
E253 An error occurred while erasing 4610 printer microcode. This error can occur because of a prior erase of the sector failed or there was an attempt to write to the same address twice.
E254 An error occurred while updating the 4610 printer microcode. This error can occur because of a prior erase of the sector failed or there was an attempt to write to the same address twice.
E255 The 4610 printer microcode has been erased and the printer is running from the boot sector.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and I/O devices to test the printer.

For the E255 event, run ADX_SPGM:ADX4610L.286 at the terminal to load the microcode or press **S1**, **95**, **S2** at the terminal to run the printer utility, which loads the mirocode.

System action: Logged as B3/S090/E010, E011, E013, E014, E015, E021, E022, E023, E042, E050, E051, E053, E054, E055, E061, E062, E063, E252, E253, E254, or E255 with unique data. See the B3 information beginning on page 201.

W404 W404 TERMINAL DEVICE EVENT HAS OCCURRED

Severity: Variable

Explanation: A terminal device event has occurred.
The event (E*xxx*) in the message indicates the following:
E002 – Non-numeric data was received from the Scale Adapter.
E003 – The Scale Adapter configuration command failed.

E004 – An unsupported Scale Adapter command was requested by the application.
E007 – An unexpected response was received from the Scale Adapter.
E010 – A diagnostic test error occurred and the tests were rerun.
E011 – An unexpected ROL was received.
E012 – The scanner, bar code reader or OCR device has not responded within 2 seconds to a command.
E013 – An operation timeout occurred or an unexpected EC command response was received from the shopper display.
E014 – There was no device response to a message.
E015 – A command reject was received from the device.
E016 – This error response can occur for the following reasons:
- An unexpected ACK was received from the alphanumeric display.
- A Scale Adapter or a Coin Dispenser Adapter hardware error was received.
- There was no shopper display response to a message.
- The Magnetic Wand Adapter enable command has failed.
- A command error was reported by Totals Retention.
- An unexpected response was received from the video display.

E017 – The device channel has reported that the scanner, bar code reader, or OCR device is not responding to polls. This message might occur after a power-management event.
E020 – A buffer overflow occurred, the adapter or device failed, or the device is disconnected.
E021 – A command was rejected by the device channel for the scanner, bar code reader, or OCR reader.
E022 – The scanner or OCR device has not returned a live status within 10 seconds. This message might occur after a power-management event.
E030 – The status length received from the dual-track magnetic stripe reader is not valid or the touch screen has sent an unsuccessful acknowledgment in response to a resolution command from the touch driver. The touch driver attempts to reset the touch screen.
E031 – An error was detected with the dual-track magnetic stripe reader initial status or the touch screen has reported that touch activity is outside the touch range and it has been clipped to a border touch coordinate. To reduce the occurrence of the touch screen problem, calibrate using a very fine point to touch the touch screen. For information about calibrating the touch screen refer to *IBM Store Systems: Installation and Operation for Point-of-Sale Input/Output Devices* , GA27-4028 or *IBM Point-of-Sale Touch Terminals: Installation and Operation Guide* , GA27-4031. Although it is possible for the touch screen problem to occur repeatedly, it is logged only once for each terminal load.
E032 – The dual-track magnetic stripe reader enable or disable command has failed or the touch screen has failed to return status within 10 seconds, indicating that a command sent by the touch driver has completed. The touch driver retries the command three times before attempting to reset the touch screen.
E033 The touch screen has sent status that does not match the configure command from the touch driver. The touch driver attempts to reset the touch screen.
E051 – An unexpected ROL was received from the keyboard.
E052 – The device channel has reported that the keyboard is no longer responding to polls.
E053 – Command rejected status received from the keyboard.
E054 – Buffer overflow status received from the keyboard.
E066 – Excessive logic in the APA display driver. Remove the excessive implementation.
E101 – Error opening a required device. The return code indicates the device and error.
E102 Error opening keypad definition file ADXPIZ1F.DAT on ADX_SPGM.
E103 Error reading from file ADXPIZ1F.DAT on ADX_SPGM.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the I/O devices.

System action: Logged as B3/Sxxx/E002, E003, E004, E007, E010, E011, E012, E013, E014, E015, E016, E017, E020, E021, E022, E030, E031, E032, E033, E051, E052, E053, E054, E066, E101, E102, or E103 with unique data. Refer to the source in “Message General Format” on page 417 for a description of the S*xxx* originator of this message.
S091 – Matrix Keyboard, or Modifiable Layout Keyboard with Card Reader
S092 – 50-Key Keyboard, Retail Point-of-Sale Keyboard, Retail Point-of-Sale Keyboard with Card Reader, or Retail Point-of-Sale Keyboard with Card Reader and Display
S093 – Alphanumeric Keyboard, ANPOS Keyboard, or Retail Point-of-Sale Alphanumeric Keyboard with Card Reader
S094 – Cash Drawer Adapter
S095 – Operator Display
S096 – Alphanumeric Display
S097 – Shopper Display
S098 – Video Display Adapter

S101 – Touch screen display or pseudo keyboard driver
S102 – Optical Character Reader (OCR) Adapter, IBM 1520 Hand-Held Scanner Model A01 (1520-A01)
S104 – Point-of-Sale Scanner
S108 – Single-Track Magnetic Stripe Reader
S109 – Dual-Track Magnetic Stripe Reader
S110 – Scale Adapter
S112 – Coin Dispenser Adapter
S114 – Totals Retention
S118 – Serial Port Adapter
S120 – Magnetic Wand Adapter
S122 – IBM 1520 Hand-Held Scanner Model A02 (1520-A02)
S124 – IBM 4685 Hand-Held Bar Code Reader Models 001 and 002

See the B3 information beginning on page 201.

W405 W405 SCANNER EVENT HAS OCCURRED

Severity: 4

Explanation: A scanner, bar code reader or OCR event has occurred.
The event (E*xxx*) in the message indicates the following:
E010 – RAS test re-run status returned from device.
E012 – An error has occurred during the setup of the device.
E015 – Command rejected status was received from the device.
E016 – An unrecognizable status was received from the device.
E018 – VLD needs replacing status received from the device.
E020 – A hardware error status was received from the device.
E021 – Device not ready status received from the device.
E022 – Device is no longer alive status, communication timeout status, label error status, or read error status received from the device.
E024 – The second Label ID does not match any recognized Label ID.
E026 – The Continued Label ID does not match the ID of the previous segment.
E030 – Data length error status was received from the device.
E036 – An IBM 4685 Hand-Held Bar Code Reader Model 002 is configured but an IBM 4685 Hand-Held Bar Code Reader Model 001 is attached.
E037 – The requested configuration for a bar code label is not supported by the attached type of scanner. The configuration has been coerced to one accepted by the scanner type.
E040 – The First Label ID does not match any recognized Label ID.
E041 – The length of label data that was received from the device is too short.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the scanner.

System action: Logged as B3/Sxxx/E010, E012, E015, E016, E018, E020, E021, E022, E024, E026, E030, E036, E037, E040, or E041 with unique data, where S*xxx* can be any of the following values:
S102 – Optical Character Reader (OCR) Adapter, IBM 1520 Hand-Held Scanner Model A01 (1520-A01)
S104 – Point-of-Sale Scanner
S122 – IBM 1520-compatible scanner
S124 – IBM 4685 Hand-Held Bar Code Reader, Models 001 and 002

See the B3 information beginning on page 201.

W407 W407 APP. LOADER EVENT HAS OCCURRED

Severity: Variable

Explanation: An application loader event has occurred.
The event (E*xxx*) in the message indicates the following:
E004 – Load request received from OCF or Terminal Services.
E005 – A CHAIN request was received from the application.
E006 – Load Debug was requested from the application.
E007 – Load table was requested from the application.
E009 – The application was canceled.

E010 – The application program ended with an error (CHAIN WITH KEEP).
E012 – The application program cannot load.
E020 – Configuration data for the application command tail could not be read from totals retention. No command tail is available to the application. Run STC to correct the problem.

User response: Take action based on the event logged.

Notes:

1. If you receive this message when trying to run a Java2 program on the terminal, be aware that in order for Java2 to work on terminals, the following items must be configured:
   - VFS must be configured on the controller.
   - Both the controller and the terminal must be configured to use TCP/IP.
   - NFS must be configured and running on the controller (NFS Server, Portmapper, and PCNFSD, if required).
   - The M:\ drive on the controller must be exported by the controller (listed in ADX_SDT1:ADXHSIXF.DAT).
   - The NFS configuration for the terminal must mount the M:\ drive of the controller as the L:\ drive of the terminal.
   - Verify that logical name TJAVA2DEF is set correctly to provide the default directory for Java applications on terminals. For more information, refer to "Setting a Default Directory for Java Applications on Terminals" in the *IBM 4690 OS: Programming Guide*.
2. If you receive this message when trying to start a Java application on the terminal side of a controller-terminal and when using response files, this error message is generated if the response file cannot be opened (for example, if the response file does not exist or if the response file refers to a drive that does not exist). Ensure the response file exists and is accessible from a command line using the same drive and path information specified in the Java command parameters field.

System action: Logged as B5/S064/E005, E006, E007, E009, E010, E012, or E020 with unique data. See the B5 information beginning on page 221.

W408 W408 NORMAL TERMINAL IPL

Severity: 5

Explanation: Normal terminal IPL has occurred.

System action: Logged as B5/S084/E000 with unique data. See the B5 information beginning on page 221.

W409 W409 OPERATOR REQUESTED TERM. IPL

Severity: 5

Explanation: The operator requested a terminal IPL through terminal services.

System action: Logged as B5/S084/E002 with unique data. See the B5 information beginning on page 221.

W410 W410 PROGRAM REQUESTED TERM. IPL

Severity: Variable

Explanation: A program made a request through terminal services.
The event (E*xxx*) in the message indicates the following:
E003 – A program requested a terminal IPL through terminal services.
E035 – A program requested a terminal memory dump from terminal services.

System action: Logged as B5/S084/E003 or E035 with unique data. See the B5 information beginning on page 221.

W411 W411 H/W PROBLEM CAUSED TERMINAL IPL

Severity: Variable

Explanation: A hardware problem caused a terminal IPL.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal to test the terminal.

System action: Logged as B5/S084/E004 with unique data. See the B5 information beginning on page 221.

W412 W412 TERMINAL IPL FROM MAIN MENU

Severity: Variable

Explanation: A terminal IPL has been requested from the system main menu at the store controller.

System action: Logged as B5/S084/E005 with unique data. See the B5 information beginning on page 221.

W413 W413 OPERATOR REQUESTED TERM. DUMP

Severity: Variable

Explanation: The operator requested a terminal storage dump from terminal services.

System action: Logged as B5/S084/E032 with unique data. See the B5 information beginning on page 221.

W414 W414 STC ERROR OCCURRED

Severity: Variable

Explanation: An STC error has occurred.
The event (E*xxx*) in the message indicates the following:
- **E001 –** STC abnormally ended because of a totals retention problem in the 4683 Mod1 terminal.
- **E002 –** STC abnormally ended while trying to open a configuration file. The file is open by another application or the master controller is not available.
- **E003 –** STC abnormally ended because of a file problem.
- **E006 –** STC abnormally ended because of an I/O Processor problem.
- **E007 –** STC abnormally ended because of a totals retention problem.
- **E008 –** STC abnormally ended because of an I/O Processor problem.
- **E009 –** STC abnormally ended because of a display problem.
- **E010 –** The total number of devices configured exceeds the capacity of a pair of 4683 terminals. Reconfigure the terminal device groups, selecting fewer I/O devices.
- **E011 –** Tables could not be loaded.
- **E012 –** Application could not be loaded.
- **E014 –** Unable to load default application.
- **E018 –** A configuration file record was processed that did not define the terminal type on which STC was running.
- **E019 –** A 4683 Mod1 terminal configuration record was processed and the partner's terminal number in the configuration record did not match the terminal number in the 4683 Mod2 terminal's hard totals.
- **E020 –** Error reading cmdtail.
- **E023 –** STC detected an invalid LAA prefix in configuration file ADX_SDT1:ADXTSAWF.DAT.
- **E024 –** File ADX_SDT1:ADXTSAWF.DAT exists but could not be opened for reading by STC. The return code is logged as unique data.
- **E025 –** A read operation on file ADX_SDT1:ADXTSAWF.DAT failed. The return code is logged as unique data.
- **E026 –** An open error occurred while accessing ADXTSSDF.DAT, the terminal screen saver data file. The terminal screen saver default information is used.
- **E027 –** A read error occurred while accessing ADXTSSDF.DAT, the terminal screen saver data file. The terminal screen saver default information is used.
- **E028 –** STC could not format the hard disk drive.

User response: Take action based on the event logged.

System action: Logged as B5/S*xxx*/E001, E002, E003, E006, E007, E008, E009, E010, E018, E019, E020, E021, E022, E023, E024, E025, E026, E027, or E028 with unique data, where S*xxx* can be:
S086 – Set Terminal Characteristics
S087 – Remote Set Terminal Characteristics

See the B5 information beginning on page 221.

W415 W415 STC EVENT OCCURRED

Severity: Variable

Explanation: An STC event has occurred.
The event (E*xxx*) in the message indicates the following:

E011 – The terminal logging the message has no terminal number and the STC application continues to load over and over (Z001).
E020 – The terminals have been successfully reconfigured.
E021 – When the STC was run, the 4683 or 4693 Mod2 terminal was not turned **on**. Terminal devices for the 4683 or 4693 Mod2 terminal are correctly configured. The default application was not changed.
E022 – When the STC was run, the non-master configuration was used instead of the master copy.

User response: Take action based on the event logged.

System action: Logged as B5/S*xxx*/E011, E020, E021, or E022 with unique data where S*xxx* can be:
S086 – Set Terminal Characteristics
S087 – Remote Set Terminal Characteristics

See the B5 information beginning on page 221.

W416 W416 UPS STATUS: ON AC POWER

Severity: 5

Explanation: The UPS has detected that normal power has been restored after a power outage.

User response: Resume normal terminal operations.

System action: Logged as B3/S099/E001. See the B3 information beginning on page 201.

W417 W417 UPS STATUS: ON BATTERY POWER

Severity: 4

Explanation: The UPS has detected a power outage and the terminal is operating on the battery power of the UPS.

User response: Close down terminal operations if normal power remains off.

System action: Logged as B3/S099/E002. See the B3 information beginning on page 201.

W418 W418 UPS SHUT DOWN LOW BATTERY CHARGE

Severity: 4

Explanation: The UPS has detected that its battery is low. The UPS will be turned off within 1 to 2 minutes. (Refer to the UPS manufacturer's specifications for the exact time.)

User response: Stop terminal operations within 1 minute.

System action: Logged as B3/S099/E003. See the B3 information beginning on page 201.

W419 W419 UPS SHUT DOWN TIME EXPIRED

Severity: 4

Explanation: The configured time interval for operating the terminal on the UPS battery has expired. The UPS will be turned off within 1 to 2 minutes. (Refer to the manufacturer's specifications for the exact time.)

User response: Stop terminal operations within 1 minute.

System action: Logged as B3/S099/E004. See the B3 information beginning on page 201.

W420 W420 UPS STATUS: RESTARTED

Severity: 5

Explanation: The UPS has been restarted after having been turned off because of either the W418 or W419 condition, and after normal power was restored. This message is displayed only on terminals that have storage retention enabled. Terminals with storage retention disabled, or terminals without storage retention, perform a complete terminal storage load when power is restored.

User response: Resume normal terminal operation.

System action: Logged as B3/S099/E005. See the B3 information beginning on page 201.

W421 W421 UPS CABLE UNPLUGGED

Severity: 4

Explanation: The UPS cable is not connected to the UPS or is not connected to the serial port for which it is configured. This message appears if the cable is not connected when the terminal is loaded and the startup sequence is performed. It does not appear if the cable is disconnected after the terminal is loaded because serial port signals do not always change when a UPS cable is disconnected.

User response: Connect the cable between the UPS and the serial port. If the cable is connected, be sure it is a cable specified by the UPS manufacturer as suitable for 469*x* terminals. If the proper cable is connected, run diagnostics on the serial port.

System action: Logged as B3/S099/E006. See the B3 information beginning on page 201.

W500 W500 LOOP ADAPTER PROBLEM DETECTED DURING IPL TESTS B*x*/S*xxx*/E*xxx*

Severity: 1

Explanation: The store controller IPL test detected a hardware problem in the store controller Store Loop Adapter.

User response: Continue problem determination using the hardware service documentation for your Store Loop Adapter.

System action: Logged as B1/S030/E001. See the B1 information beginning on page 198.

W501 W501 *ssssssss:nnnnnnnn.eee*

Severity: 1

Explanation: The system has been unable to find a critical file during IPL.

ssssssss = subdirectory
nnnnnnnn = file name
eee = extension

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. IPL the store controller using the Supplemental Diskette or Supplemental option on the CD-ROM.
2. When the SYSTEM MAIN MENU is displayed, the Supplemental Diskette or Supplemental option has corrected any data or control information on the hard disk drive that was incomplete because of the temporary power failure that caused message W501 to display.
   If you were using Apply Software Maintenance (ASM) when the W501 message occurred, you should also use the Supplemental Diskette or Supplemental option on the CD-ROM to cancel the Test-Applied Maintenance. Refer to *IBM 4690 OS: User's Guide*. If you have accepted maintenance, it cannot be canceled.
3. Remove the Supplemental Diskette or CD-ROM and IPL the store controller from the hard disk drive.
   If the problem persists:
   Use your store procedures for recovering the missing module.
   One recovery procedure is to use the Supplemental Diskette or Supplemental option on the CD-ROM (IPL the first Supplemental Diskette and switch to the second) and the Restore command to restore the missing module from a backup diskette.

System action: No logging in the store controller.

W502 W502 (No Message Text)

Severity: 1

Explanation: Unable to find usable nonvolatile random access memory (NVRAM) on a store controller.

User response: Continue problem determination using the hardware service documentation for your Store Loop Adapter.

System action: No logging in the store controller.

W503 W503 (No Message Text)

Severity: 1

Explanation: The IPL cannot be completed. The ADX_SPGM subdirectory entry was not found when IPL searched the root directory of the C disk.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. IPL the store controller using the Supplemental Diskette or the Supplemental option on the CD-ROM.
2. When the SYSTEM MAIN MENU is displayed, any data or control informatihas been corrected.
   If you were using Apply Software Maintenance (ASM) when the W503 message occurred, you should also use the Supplemental Diskette or the Supplemental option on the CD-ROM to cancel the Test-Applied Maintenance. Refer to *IBM 4690 OS: User's Guide*. If you have accepted maintenance, it cannot be canceled.
3. Remove the Supplemental Diskette or CD-ROM and IPL the store controller from the hard disk drive.
   If the problem persists:
   List the C disk directory.
   - If there is a permanent read error, reinstall the entire system package because the disk format step can fix this problem.

     Attention: All data on the disk is lost if reinstallation is performed.
   - If a permanent read error is not detected, the installation procedure was incomplete and it should now be completed.

System action: No logging in the store controller.

W504 W504 (No Message Text)

Severity: 1

Explanation: The IPL cannot be completed. The operating system image file (ADXCT8SL.286 for a 386 in subdirectory ADX_SPGM) was not found or the real mode services file (ADXILI4L.286 in subdirectory ADX_SPGM) was not found.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. IPL the store controller using the Supplemental Diskette or the Supplemental option on the CD-ROM.
2. When the SYSTEM MAIN MENU is displayed, any data or control information on the hard disk drive that was incomplete because of the temporary power failure that caused message W504 to display has been corrected.

   If you were using Apply Software Maintenance (ASM) when the W504 message occurred, you should also use the Supplemental Diskette or the Supplemental option on the CD-ROM to cancel the Test-Applied Maintenance. Refer to *IBM 4690 OS: User's Guide*. If you have accepted maintenance, it cannot be canceled.
3. Remove the Supplemental Diskette or CD-ROM and IPL the store controller from the hard disk drive.
   If the problem persists:
   Use your store procedures for recovering the missing module.
   One recovery procedure is to use the Supplemental Diskette or the Supplemental option on the CD-ROM (IPL the first Supplemental Diskette and switch to the second) and the Restore command to restore the missing module from a backup diskette.

System action: No logging in the store controller.

W505 W505 (No Message Text)

Severity: 1

Explanation: The IPL cannot be completed. There was an unrecoverable read error while reading the listed operating system image file.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. IPL the store controller using the Supplemental Diskette or the Supplemental option on the CD-ROM. When the SYSTEM MAIN MENU is displayed, any data or control information on the hard disk drive that was incomplete because of the temporary power failure that caused message W505 to display has been corrected.
   If you were using Apply Software Maintenance (ASM) when the W505 message occurred, you should also use the Supplemental Diskette or the Supplemental option on the CD-ROM to cancel the Test-Applied Maintenance. Refer to *IBM 4690 OS: User's Guide*. If you have Accepted Maintenance, it cannot be canceled.
2. Remove the Supplemental Diskette or CD-ROM and IPL the store controller from the hard disk drive.
   If the problem persists:
   1. IPL the system using the Supplemental Diskettes or the Supplemental option on the CD-ROM.
   2. Use the RECFILE command to recover the file listed in the W505 message, and mark the bad disk area.
   3. Restore the file listed in the W505 message to the ADX_SPGM subdirectory from backup.
      If the restore command fails to correct the problem, a base memory hardware failure might be the cause. Continue problem determination using the service documentation for your store controller.

System action: No logging in the store controller.

W506 W506 (*Drive Identifier*) or (*Driver Name*)

Severity: 1

Explanation: The IPL cannot be completed. The device driver (named in the message) that is needed to run the system did not install correctly or the driver to subdriver association (named driver to subdriver) did not complete successfully.

Probable Causes:

The named driver cannot be found in the ADX_SPGM directory.
If the device driver load module has a format that is not valid, this could possibly indicate a corrupted file.
There are not enough system memory resources to load the device driver or associate a driver to a subdriver.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:

If a *Drive Identifier* is in the message:

1. IPL the store controller using the Supplemental Diskette or the Supplemental option on the CD-ROM. When the SYSTEM MAIN MENU is displayed, any data or control information on the hard disk drive that was incomplete because of the temporary power failure that caused message W506 to display has been corrected.
   If you were using Apply Software Maintenance (ASM) when the W506 message occurred, you should also use the Supplemental Diskette or the Supplemental option on the CD-ROM to cancel the Test-Applied Maintenance. Refer to *IBM 4690 OS: User's Guide*. If you have Accepted Maintenance, it cannot be canceled.
2. Remove the Supplemental Diskette or CD-ROM and IPL the store controller from the hard disk drive.

If a *Driver Name* is in the message:

1. IPL the store controller using the Supplemental Diskettes or Supplemental option on the CD-ROM and copy the named device driver from the Supplementals to the ADX_SPGM directory.
2. Use File Utilities to ensure that the distribution attributes are set to Compound, Distribute on Close.
3. Re-IPL the controller from the hard disk drive.

If neither a *Drive Identifier* nor a *Driver Name* is in the message, and the system has been replicated from backup, you might not have a match between the node dependent files and the node ID of this store controller.

1. IPL the store controller using the Supplemental Diskette or the Supplemental option on the CD-ROM.
2. From command mode, type ADXNSX0L ***nn*** and press **Enter**. (Where ***nn*** is the store controller node ID that corresponds to the node dependent files installed on this controller.)
3. Remove the Supplemental Diskette or CD-ROM and IPL the store controller.

If the problem persists:

1. IPL the system using the Supplemental Diskettes or the Supplemental option on the CD-ROM.
2. Use the RECFILE command to recover ADXCT8SL.286 (for 386 processors) and mark the bad disk area.
3. Use the Restore command to restore a copy of ADXCT8SL.286 to the ADX_SPGM subdirectory from backup.
4. Ensure that there are enough system resources to load the device driver or associate a driver to a subdriver.

If the restore command fails to correct the problem, a base memory hardware failure might be the cause. Continue problem determination using the service documentation for your store controller.

System action: No logging in the store controller.

W507 W507 DUMP IN PROGRESS IPL TO FOLLOW

Explanation: This message appears when a store controller storage dump occurs. W507 is not logged in the system log, but W598 is logged.

Additional data is collected when dumping a store controller running in Enhanced Mode. The following messages are displayed to indicate the progression of the enhanced controller dump:

W507.1 – Collecting system information.
W507.2 File <count>/<total files> <percent complete>% – Collecting problem determination data.
W507 DUMPING STORAGE <bytes dumped> <bytes left to dump> – Dumping controller memory.

User response: Check the System Log for a W598 message that was logged during the IPL following the dump. The W598 message contains S030 and an event number that identifies the cause of the dump:

E031 or E044 – Add keywords MSGW507 and B*x*/S*xxx*/E*xxx* to the Problem Data Collection Form that was begun with the message that instructed you to initiate a store controller dump.
E033 or E036 – Follow “Problem data collection procedure 4” on page 356.

Note: Once the dump has completed, the system returns to operational status automatically.

Programmer response: Review the Problem Data Collection Form, the System Log, and the formatted dump data created using “Creating a problem analysis diskette or data file” on page 368.

If the program check occurred in an IBM licensed product or system application program, call the IBM Support Center for software assistance.

System action: Logged as W598 with B5/S030/E031, E033, E036 or E044. See the B5 information beginning on page 221.

W508 W508 RELOADING TO ACTIVATE CONFIGURATION CHANGES

Severity: 5

Explanation: This message is displayed when:

- Configure Store Controller Activation was run since the last IPL.
- Items were received from the master store controller.

An automatic reload is issued during the current IPL, to ensure that any configuration files that were received during reconciliation are used when the IPL has completed.

Entries are removed from the Exception Log for any store controllers that were deleted during configuration.

System action: No logging in the store controller.

W509 W509 BAD RETURN CODE FROM BIOS DURING ABIOS INITIALIZATION

Severity: Variable

Explanation: A bad return code was received from BIOS during ABIOS initialization.

User response: Power Off the store controller, wait 5 seconds, and power On the store controller.
If the problem persists after several attempts, continue problem determination using the service documentation for your store controller.

System action: No logging in the store controller.

W510 W510 TOKEN RING AND ETHERNET ADAPTER PROBLEM

Severity: 1

Explanation: The token-ring or Ethernet driver initialization has failed and the controller IPL has stopped.

This is normally due to an adapter problem such as:

- The token-ring or Ethernet adapter is missing.
- The token-ring or Ethernet adapter is not securely seated in the bus adapter.

- The bus adapter that the token-ring or Ethernet adapter is plugged into is not securely seated.
- Another adapter plugged into the same bus adapter as the token-ring or Ethernet adapter is causing interference with the token-ring or Ethernet adapter.
- The token-ring or Ethernet adapter is failing.
- The bus adapter that the token-ring or Ethernet adapter is plugged into is failing.

User response: Press **F1** to resume the controller IPL ***without*** token-ring or Ethernet support. If you require token-ring or Ethernet support, do the following:
- Ensure the token-ring or Ethernet adapter is securely seated in the bus adapter.
- Ensure the bus adapter is securely seated.
- Remove other adapters plugged into the same bus adapter as the token-ring or Ethernet adapter.
- Replace the token-ring or Ethernet adapter.
- Replace the bus adapter.

System action: No logging in the store controller.

W511 W511 GRAPHICS ERROR B4/S024/Exxx VBE=xxxx X=xxxx Y=xxxx CLR=xxxxxxxx

Severity: 3

Explanation: Graphics cannot start. In the message, VBE is the Video BIOS Extension(VBE) version level on your system. For example 0102 would be VBE 1.2. *X*, *Y* and *CLR* describe the graphics mode (resolution and number of colors) in use on your system:

X — number of horizontal pixels in the resolution
Y — number of vertical pixels in the resolution
CLR — number of simultaneous colors

The event (E*xxx*) in the message indicates the following:

E101 – Java graphics has not been configured.

E105 An error has occurred during graphics initialization.

E106 The video adapter does not support VESA BIOS Extensions (VBE).

E107 The video adapter does not support the minimum graphics mode required to support 4690 graphics.

E108 An error has occurred trying to obtain the graphics configuration information.

User response: Use the following event information to help correct the problem.

E101 Ensure you have configured Java graphics.

E105 Attempt to dump the affected controller or terminal and contact IBM support.

E106 Ensure that you are using a controller or terminal with a video adapter that supports VESA BIOS Extensions (VBE).

E107 Ensure that you are using a controller or terminal with a video adapter that supports the minimum graphics mode (640x480, 256 colors) required to support 4690 graphics.

E108 Attempt to dump the affected controller or terminal and contact IBM support.

System action: Logged as B4/S024/E101, E105, E106, E107, or E108. See the B4 information beginning on page 201.

W512 W512 COMMAND LINE LOG FILES CONCATENATION COMPLETE B4/S246/Exxx RETURN CODE: xxxxxxxx OPERATOR ID: ccccccccc

Severity: 5

Explanation: This message is displayed when the Command Line Logging Utility has been run.

The event (E*xxx*) in the message indicates the following:

E001 – The function completed at IPL time.

E002 The function was initiated by the operator ccccccccc.

The return code in the message is in hexadecimal and indicates the following:

Table 5. Return codes for W512

Return code	Explanation
00000000	Success
FFFFFFFE	No valid options found in list file
FFFFFFFD	Directory ADX_CLOG does not exist
FFFFFFFC	Can not open/create out file
FFFFFFFB	Out file is compressed (zipped)
FFFFFFFA	No files of the specified type were found

System action: Logged as B4/S246/E001 or E002. See the B4 information beginning on page 201.

W555 W555 (*Sequence Number*)

Explanation: This is a system status message. It is displayed by the operating system as it goes through the IPL process. Each sequence number indicates the step that has been reached in this procedure. The system updates each sequence number as it completes the previous step.

The sequence numbers indicate the following:

000 –
- The USB stack (drivers and subdrivers needed by USB devices) is being installed.
- Console is establishing communications with the 4690 system.

001 –
- The system is creating or updating ADXILIPF.DAT. This data file is used by performance monitoring.
- The floppy disk (diskette) deiver is being installed.
- The USB memory key driver is being installed.

002 –
- The system is putting the node ID of the store controller into the System Common Data area (CCOMD).
- On a store system that has the Multiple Controller Feature, the system is putting the list of node IDs into the Node List Entry (NLE) table (an internal table). A pointer to this table is being put into the CCOMD.
- If a CD-ROM drive is attached, the driver and resource manager are being installed.

004 –
- The system is logging events and messages.
- The system is logging any errors that File Services has encountered on the hard disk drive.

006 – Process and system logical names are being identified.

008 – File activation error recovery is about to run.

010 – Logical names (defined in the logical names files) are being set.
- The pool of buffers needed by Terminal-Controller Communications (TCC) functions is being allocated.
- The store controller options (ADXDGiiF.DAT) are being stored in the System Common Data area (CCOMD).
- The system is setting the logical names needed to handle drives C: and D:. The process related to logical name ADXIOH00 is performed.
- The mouse driver is being installed.

011 – SCSI and Optical Drivers are being installed.

012 –
- Kernel logging is being enabled.
- The store controller options are being stored in permanent storage on the Store Loop Adapter.
- The keyboard table configuration (ADXCSCKF.DAT) is about to be stored in the System Common Data area (CCOMD).
- Kernel logging is being initialized.
- Setting up network defines.
- Enabling VFS on C: drive.

12A – Creating VFS subdirectories to support long file names. This might take up to two minutes.

013 – Time Frame 1 of the IPL Command Processor is active. Each command executed during this time frame is displayed.

014 – The Command Line Logging feature is being enabled (if logical name ADXCMDLG exists). Software maintenance is being applied (if necessary).

015 – Each store controller is executing code to create the common terminal load image.
016 – The Pipe Routing Services driver is being installed.
018 – Operator console facility (OCF) Process 1 error logging is being created.
020 –
- The Enhanced LAN trace driver is being installed.
- The network attached interface driver is being installed.
- The Telnet driver is being installed.
- The printer driver is being installed.
- The IBM Realtime Interface Co-Processor Multiport/2 adapter driver is being installed.
- The auxiliary console and serial printer driver are being installed.
- The parallel printer is being installed.
- The system printer is being defined.
- The print spooler is being installed.
- Enhanced RAM Disk (Q:) is being loaded
- VFS subdirectories for Enhanced RAM Disk (Q:) are being created.
- PLD protection is being enabled.

030 –
- Ethernet MAC driver installed.
- 802.2 LLC driver installed.

031 – The LAN requester, ADXLNR0L.286, is being installed.
032 – Valid only with the MCF or token-ring feature enabled. Network driver, NETSER is being installed.
034 – Valid only with the MCF or token-ring feature enabled. Network driver, NET, is being installed.
036 – Valid only with the MCF or token-ring feature enabled. Network driver, PCNSD, is being installed.
038 – Valid only with the MCF or token-ring feature enabled. If you are using a token-ring network, network driver TRXPORT is being installed. If you are using Ethernet, then Ethernet ETHXPORT is being installed.
039 – Valid only with the MCF or token-ring feature enabled. Token-ring driver, TRDLC, is being installed.
03A – The TCP/IP driver, ADXHSI0L.286, is being installed.
03B – The IPsec driver is being installed.
040 – Valid only with the MCF or token-ring feature enabled. The node ID for this store controller is being put into the network connection table (if the MCF feature is enabled). The token-ring cable must be attached and the token-ring address must be unique.
041 – The NFS/VFS client, ADXHSIDL.286, is being installed.
042 – The system is preparing the setup that is required for the store controller to dump to a file.
046 – Time Frame 2 of the IPL command processor is active. Each command executed during this time frame is displayed.
047 – Java support is being installed.
- The JATTACH (java redirection) driver is being installed.
- The system information tool driver, ADXSITSL, is being installed.
- The system management driver, ADXSIX0L, is being installed.

050 – The Data Distribution Application (DDA) is being installed.
060 – Host driver, ADXHSDOL, is being installed.
062 – Application services driver, ADXSERVE, is being installed.
064 – Print spooler driver, SPLDVR, is being installed. Wait for DDA to complete.
080 – The system is checking to see if configuration has been activated since the last IPL. If configuration has been received, the system sets up for an IPL.
085 – The system has determined an IPL is necessary because of configuration changes.
089 – The system is updating the vital product data file (ADX_SPGM:ADXCSCVF.DAT).
090 –
- The enhanced security driver, ADXEPW0L, is being installed.
- The system services process (SSP) is being started to monitor RMA, SSH, and INETD processes.
- The system is checking to see if this store controller is on a LAN (MCF Network) system and if it is the Master or Alternate Master.
  - If it is on a LAN system or it is the Master or Alternate Master, the system terminal ROL driver, ADXFSSRL, is installed.
  - If it is *not* on a LAN system or it is *not* the Master or Alternate Master, the DAA/Configuration Check has completed and no IPL is required.

092 – The system is checking to see if this store controller is on a LAN (MCF Network) system. If it is on a LAN system, the operating system creates the pipe routing service process, ADXFSSGC.
- The VFS server, ADXVFSVL, is started.
- The SSH server, ADXSSHDL, is started.

F92 Additional controller load steps are being taken.

J92 – Additional files are being extracted to the M: (and possibly F:) drives after software maintenance. The files may include files for Java2, RMA, and Java6. This might take up to 10 minutes to complete.

P92 – If configured, the enhanced security password driver is being installed and the SSH server is being started.

R92 Controller preload files are being rebuilt. A non-master controller will wait here until the master controller rebuilds and distributes the files.

X92 – Controller and system extensions are being installed and initialized. This includes features enabled via extensions such as LDAP support and Firefox.

093 – Time frame 3 of the IPL command processor is active. Each command executed during this time frame is displayed.

094 –

- The operating system is creating OCF process 2 window manager.
- The streaming tape driver is being installed (if needed).
- The OEM supplied drivers (UDV0, UDVSW) are being installed (if needed).
- RAM disks configured for the store controller (T:, U:, V:, W:) are being installed.
- The UDF server, ADXUDF0L, is started.
- The "IPL Is Complete" flag is being set into CCOMD.
- The terminal sessions server driver, ADXTSS0L, is being installed.

095 –

- If configured, the Remote Management Agent (RMA) is started.
- ADXNSTCC is exited.

Vnn – The following additional sequence numbers are displayed during the IPL process of a store controller operating in **Enhanced Mode**. Some of these sequence numbers (for example, V15, V89) can also be displayed during the IPL of a controller operating in Classic Mode while processing data related to **Enhanced Mode**.

000 – Initializing the 4690 OS environment

V00 – Starting 4690 OS

V01 – Loading the 4690 kernel

V02 – 4690 OS loaded successfully. This sequence number will be followed by traditional 4690 OS IPL sequence numbers.

V04 – Terminating 4690 Extensions

V10 – Reloading 4690 OS due to ASM

V11 Loading the 4690 kernel after it was stopped.

V15 *nnnnnnnn* **–**
nnnnnnnn is the filename of the program that is being executed.

V20 – 4690 OS IPL requested

V30 – Full system restart requested (cold restart).

V40 – Enhanced 4690 is doing a shutdown.

V42 – This message is displayed after a controller storage dump has taken place. The dump data is written to disk in compressed form during W507. This message indicates the data is being decompressed so it can be processed.

V89 – The system is rebuilding the enhanced terminal boot load files (if needed).

V99 – Stopping 4690 OS

User response: If the sequence numbers stop before the final one is displayed and removed, attempt to IPL the store controller again.

If the problem persists, follow "Problem data collection procedure 1" on page 355.

Programmer response: Verify that the IPL procedures are being followed.

If the procedures are being followed:

1. Follow the procedure for "Requesting a store controller storage dump" on page 359.
2. Call the IBM Support Center for software assistance and provide the store controller dump information.

System action: No logging in the store controller.

W593 **W593** *xxxxxxxx* **SERVICE STOPPED ID=***uuuuuuuuu*

Severity: 3

Explanation: A system service has been stopped based on user input through the System Services Process Utility (ADXSSP0L.286).

Where: *xxxxxxxxx* is the system service stopped by and is one of:

- RMA
- SSH
- INETD

uuuuuuuuu is the user ID initiating this action.

User response: Take action based on the event logged.

System action: Logged as B5/S030/E005.

W594 **W594** *xxxxxxxx* **SERVICE STARTED ID=***uuuuuuuuu*

Severity: 3

Explanation: A system service has been started.

Where: *xxxxxxxxx* is the system service started and is one of:

- RMA
- SSH
- INETD

uuuuuuuuu is the user ID initiating this action.

The event (E*xxx*) in the message indicates the following:

E001 – The service was started at IPL time ("ID=*IPL*").

E003 – The service was started by user action through the System Services Process Utility (ADXSSP0L.286).

User response: Take action based on the event logged.

System action: Logged as B5/S030/E001, E003.

W595 **W595***xxxxxxxx* **SERVICE ENDED, RC=***yyyyyyyy*

Severity: 3

Explanation: A system service has ended.

Where: *xxxxxxxxx* is the system service which ended and is one of:

- RMA
- SSH
- INETD

yyyyyyyy is the return code supplied by the ending service.

Specific and unique return codes have been added to the inetd server such that when the server ends with error, the return code can be logged in the W595 message.

Table 6. INETD return codes for W595

Return code	Explanation
00000001	Network interface not configured
00000002	Error on INETD server socket (select)
00000003	Error creating INETD server socket
00000004	Error on INETD server socket (bind)

Table 6. INETD return codes for W595 (continued)

Return code	Explanation
00000005	Error on INETD server socket (listen)
00000006	Error opening INETD configuration file
00000007	Missing or invalid protocol parameter in INETD configuration file
00000008	Missing server file name in INETD configuration file
00000009	Memory allocation error in INETD server

The event **(E*xxx*)** in the message indicates the following:
E002 – The service failed at IPL time.
E003 – The service failed to start successfully when the user attempted to Restart the service through the System Services Process Utility (ADXSSP0L.286).
E006 – The service ended during normal operation.
E010 – Pipe open failure.
E011 – Pipe write failure.

User response: Take action based on the event logged and return code.

System action: Logged as B5/S030/E002, E004, E006.

W596 W596 VITAL PRODUCT DATA FILE ERROR OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx* DP=*xx*

Severity: 1

Explanation: An error occurred updating the ADXCSCVF.DAT file. This file is updated each time the system is IPLed. The OP Code (OP=*xx*) in the message indicates the following:
OP=OP
– Open failure
OP=SP – Special failure
OP=WP
– Write failure

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Depending on the return code value, the ADX_SPGM:ADXCSCVF.DAT file might be corrupted. Restore this file from backup into the ADX_SPGM subdirectory and IPL the system.

Refer to *IBM 4690 OS: User's Guide* for information on creating backup diskettes.

System action: Logged as B5/S030/E053 with unique data. See the B5 information beginning on page 221.

W598 W598 STORE CONTROLLER STORAGE DUMP OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: A store controller storage dump has occurred.
The event (E*xxx*) in the message indicates the following:
E001 A system dump occurred.
E031 – Someone has pressed the store controller dump switch, causing a store controller dump and an IPL to occur.
E033 – A store controller dump and an IPL has occurred because of an operating system program check.
E036 – A store controller application program check caused a store controller dump.
E037 – A store controller storage dump and IPL have occurred because multiple terminal application timeouts have occurred.
E038 – A store controller storage dump and IPL have occurred because a program check occurred on a program running on IBM Realtime Interface Co-Processor Multiport adapter card number 0.
E039 – A store controller storage dump and IPL have occurred because a program check occurred on a program running on IBM Realtime Interface Co-Processor Multiport adapter card number 1.
E040 – A store controller storage dump and IPL have occurred because a program check occurred on a program running on IBM Realtime Interface Co-Processor Multiport adapter card number 2.
E041 – A store controller storage dump and IPL have occurred because a program check occurred on a program running on IBM Realtime Interface Co-Processor Multiport adapter card number 3.

E042 – An operator requested a store controller dump and IPL. This is the result of a controller dump menu selection.
E043 – An application requested a store controller dump and IPL. This is the result of an ADXSERVE call to dump the controller memory.
E044 – An operator requested a dump from the controller. This reason code is used when the operator requests a controller dump by pressing CTRL+ALT+– (minus on the numeric keypad).
E045 – The store controller dump occurred in response to a SYSWBUG call.
E046 – The store controller dump occurred in response to a panic call.
E047 – A controller dump and IPL occurred due to the pipe system hang (requested by terminal loop or controller loop in an attempt to recover the local pipe system).
E050 – The system dump occurred due to an underlying Operating System trap.
E051 – The system dump occurred due to an underlying Operating System trap.
E052 – The system dump occurred due to an Enhanced Mode application program check.

User response: Take action based on the event logged.

System action: Logged as B5/S030/E001, E031, E033, E036, E037, E038, E039, E040, E041, E042, E043, E044, E045, E046, E047, E050, E051, or E052 with unique data. See the B5 information beginning on page 221.

W599 W599 NORMAL STORE CONTROLLER IPL B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: A normal store controller IPL has occurred.
The event (E*xxx*) in the message indicates the following:
E000 – The store controller was powered Off, then powered On or a power line disturbance occurred forcing an IPL.
E001 – A system dump occurred.
E002 – The operator requested an IPL from system services.
E003 – The program requested an IPL from terminal services.
E004 – A hardware fault occurred.
E005 – The program or operator requested an IPL from OCF.
E006 – An IPL occurred because of software activation. This is a normal occurrence when you apply software maintenance.
E007 – An IPL occurred because an operator pressed Ctrl, Alt, and Del.
E008 – An IPL occurred because an operator pressed Ctrl, Alt, and Esc.
E009 – An IPL occurred because a new loader has been successfully installed on the system.

System action: Logged as B5/S030/E000, E001, E002, E003, E004, E005, E006, E007, E008, or E009 with unique data. See the B5 information beginning on page 221.

W601 W601 A REQUEST WAS OMITTED DUE TO I/O PROBLEM B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* SUB=*x* OP=*x*

Severity: 4

Explanation: One of several requests or reports was omitted because of a file, pipe, or console I/O problem.
The event (E*xxx*) in the message indicates the following:
E161 – The file is an IBM-supplied permanent file.
E162 – The file is a system data file that is currently in use (active). The file might have been created by the user (perhaps with IBM-supplied routines that enable the user to modify IBM-supplied default files).
E163 – The file is a temporary file created by the function being run.
E164 – The file is a permanent system file, in that it must exist, but the data contained in the file can be recreated.
E165 – The file is a potential system data file that was being modified when the file I/O error occurred.
E166 – The file is an inactive file that has two copies (a work file plus an inactive file).
E167 – A pipe I/O error occurred.
E168 – The file is a renamed file that is currently being renamed from an inactive file to an active file during *activation*.
E169 – A console error occurred.

The Op Code (OP=*x*) in the message indicates the following:

```
OP=B - COPY                 OP=S - COPY SEQUENTIAL
OP=C - CLOSE                       (Read 512, Write 512)
OP=D - DELETE               OP=T - ERROR DETECTED IN
OP=E - CREATE                      FILE DATA (NO RETURN
OP=F - KEYED CREATE                CODE AVAILABLE)
OP=G - SPECIAL              OP=U - KEYED WRITE
OP=M - OPNDIS (RC=2 Bytes)  OP=W - WRITE
OP=N - RENAME               OP=X - KEYED COPY
OP=O - OPEN                 OP=Y - KEYED DELETE
OP=P - KEYED OPEN           OP=Z - OPEN, RETURN CODE
OP=R - READ                        NOT AVAILABLE
```

User response: Choose one of the following based on the event (E*xxx*) that is displayed:

E162 – This error is received because the file was being used by another process when the indicated operation was requested.

For instance, configuration uses many files and no other process should be running when doing configuration to avoid file conflict. For example, if the file listed is a terminal configuration file, check to see if a terminal is using this file. STC might be running. STC uses ADXCSCTF.DAT. If a terminal is using this file, either wait until the terminal completes the activity or turn the terminal Off. Then, IPL all controllers in the system to resolve the file conflict. If a file has an extension of .RSQ, IPL all controllers in the system to enable the system to resolve the name differences.

For other types of files or if the problem persists, follow “Problem data collection procedure 1” on page 355.

E167 or 169 –

IPL the store controller and retry. **If the problem persists**, follow “Problem data collection procedure 3” on page 356.

Note: Message W507 is displayed at the store controller.

E161, E163, E164, E165, E166, or E168 –

Follow “Problem data collection procedure 1” on page 355.

Programmer response: If the file is on a diskette, use a backup copy of the diskette and based on the event (E*xxx*) that is displayed:

E161 – Restore the file directly from the IBM-supplied disks.
E162 – Restore the file from the backup of the system data files taken when they were activated.
E163 – Delete the file and rerun the function.
E164 – The data that was in the file when the I/O error occurred is lost, but the function can be rerun to recreate similar data.
E165 – Restore the most recent backup of this file.
Any modifications made to the file after the backup was made are lost.
E166 – Recover lost work from the other copy of the file.
E167 – IPL the store controller and retry.
E168 – If the inactive file is still available, erase the renamed file and rerun activation.
If the problem persists, continue problem determination using the service documentation for your store controller.

System action: Logged as B5/S*xxx*/E161, E162, E163, E164, E165, E166, E167, E168, or E169 with unique data, where S*xxx* can be:

S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility

S046 – File Distribution utility
S048 – Remote Command Processor
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W602 **W602 PROGRAM CANCELED DUE TO I/O PROBLEM B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* SUB=*x* OP=*x***

Severity: 3

Explanation: The application was canceled because of a file, pipe, or console I/O problem.

The event (E*xxx*) in the message indicates the following:

E161 – The file is an IBM-supplied, permanent file.
E162 – The file is a system data file that is currently in use (active). The file might have been created by the user (perhaps with IBM-supplied routines that enable the user to modify IBM-supplied default files).
E163 – The file is a temporary file created by the function being run.
E164 – The file is a permanent system file in that it must exist, but the data contained in the file can be recreated.
E165 – The file is a potential system data file that was being modified when the file I/O error occurred.
E166 – The file is an inactive file that has two copies (a work file plus an inactive file).
E167 – A pipe I/O error occurred.
E168 – The file is a renamed file that is currently being renamed from an inactive file to an active file during *activation*.
E169 – A console error occurred.

The Op Code (OP=*x*) in the message indicates the following:

```
OP=B - COPY                 OP=S - COPY SEQUENTIAL
OP=C - CLOSE                       (Read 512, Write 512)
OP=D - DELETE               OP=T - ERROR DETECTED IN
OP=E - CREATE                      FILE DATA (NO RETURN
OP=F - KEYED CREATE                CODE AVAILABLE)
OP=G - SPECIAL              OP=U - KEYED WRITE
OP=M - OPNDIS (RC=2 Bytes)  OP=W - WRITE
OP=N - RENAME               OP=X - KEYED COPY
OP=O - OPEN                 OP=Y - KEYED DELETE
OP=P - KEYED OPEN           OP=Z - OPEN, RETURN CODE
OP=R - READ                        NOT AVAILABLE
```

User response: Choose one of the following based on the event (E*xxx*) that is displayed:

E162 – This error is received because the file was being used by another process when the indicated operation was requested.

For instance, configuration uses many files and no other process should be running when doing configuration to avoid file conflict. For example, if the file listed is a terminal configuration file, check to see if a terminal is using this file. STC might be running. STC uses ADXCSCTF.DAT. If a terminal is using this file, either wait until the terminal completes the activity or turn the terminal Off. Then, IPL all controllers in the system to resolve the file conflict. If a file has an extension of .RSQ, IPL all controllers in the system to enable the system to resolve the name differences.

For other types of files or if the problem persists, follow “Problem data collection procedure 1” on page 355.

E167 or 169 –
IPL the store controller and retry. **If the problem persists**, follow “Problem data collection procedure 3” on page 356.

Note: Message W507 is displayed at the store controller.

E161, E163, E164, E165, E166, or E168 –
Follow “Problem data collection procedure 1” on page 355.

Programmer response: If the file is on a diskette, use a backup copy of the diskette and based on the event (E*xxx*) that is displayed:

E161 – Restore the file directly from the IBM-supplied disks.
E162 – Restore the file from the backup of the system data files taken when they were activated.
E163 – Delete the file and rerun the function.
E164 – The data that was in the file when the I/O error occurred is lost, but the function can be rerun to recreate similar data.
E165 – Restore the most recent backup of this file . Any modifications made to the file after the backup was made are lost.
E166 – Recover lost work from the other copy of the file.
E167 – IPL the store controller and retry. **If the problem persists**, follow “Problem data collection procedure 3” on page 356.

Note: Message W507 is displayed at the store controller.

E168 – If the inactive file is still available, erase the renamed file and rerun activation.
If the problem persists, continue problem determination using the service documentation for your store controller.

System action: Logged as B5/S*xxx*/E161, E162, E163, E164, E165, E166, E167, E168, or E169 with unique data, where S*xxx* can be:

S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S048 – Remote Command Processor
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W603 **W603 RECORD NOT PROCESSED DUE TO DISK SECTOR PROBLEM B*x*/S*xxx*/E*xxx***
FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* SUB=*x* OP=*x*

Severity: 4

Explanation: A record within a file was not processed because of a bad sector on the disk.

The event (E*xxx*) in the message indicates the following:

E161 – The file is an IBM-supplied, permanent file.
E162 – The file is a system data file that is currently in use (active). The file might have been created by the user (perhaps with IBM-supplied routines that enable the user to modify IBM-supplied default files).
E163 – The file is a temporary file created by the function being run.
E164 – The file is a permanent system file in that it must exist, but the data contained in the file can be recreated.
E165 – The file is a potential system data file that was being modified when the file I/O error occurred.
E166 – The file is an inactive file that has two copies (a work file plus an inactive file).
E168 – The file is a renamed file that is currently being renamed from an inactive file to an active file during *activation*.

The Op Code (OP=*x*) in the message indicates the following:

```
OP=B - COPY                 OP=S - COPY SEQUENTIAL
OP=C - CLOSE                       (Read 512, Write 512)
OP=D - DELETE               OP=T - ERROR DETECTED IN
OP=E - CREATE                      FILE DATA (NO RETURN
OP=F - KEYED CREATE                CODE AVAILABLE)
OP=G - SPECIAL              OP=U - KEYED WRITE
OP=M - OPNDIS (RC=2 Bytes)  OP=W - WRITE
OP=N - RENAME               OP=X - KEYED COPY
OP=O - OPEN                 OP=Y - KEYED DELETE
OP=P - KEYED OPEN           OP=Z - OPEN, RETURN CODE
OP=R - READ                        NOT AVAILABLE
```

User response: Do the following based on the event (E*xxx*) that is displayed:

E161, E162, E163, E164, E165, E166, or E168 –
Follow "Problem data collection procedure 1" on page 355.

Programmer response: If the file is on a diskette, use a backup copy of the diskette and based on the event (E*xxx*) that is displayed:

E161 – Restore the file directly from the IBM-supplied disks.
E162 – Restore the file from the backup of the system data files taken when they were activated.
E163 – Delete the file and rerun the function.
E164 – The data that was in the file when the I/O error occurred is lost, but the function can be rerun to recreate similar data.
E165 – Restore the most recent backup of this file . Any modifications made to the file after the backup was made are lost.
E166 – Recover lost work from the other copy of the file.
E168 – If the inactive file is still available, erase the renamed file and rerun activation.

If the problem persists, continue problem determination using the service documentation for your store controller.

System action: Logged as B5/S*xxx*/E161, E162, E163, E164, E165, E166, or E168 with unique data, where S*xxx* can be:

S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S048 – Remote Command Processor
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W604 **W604 PROGRAM CANCELED DUE TO SYSTEM PROGRAM PROBLEM B*x*/S*xxx*/E*xxx* FUNC=*xxxx* RC=*xxxxxxxx* OP=*x***

Severity: 3

Explanation: The application was canceled because of a bad return code from an operating system program.

The Op Code (OP=*x*) in the message indicates the following:

```
OP=A - Bad return code from application services.
OP=T - Error detected in file data.
```

User response: For OP=T, copy ADXCSCFF.DAT, ADXCSCSF.DAT, ADXCSCXF.DAT, ADXDS*??*F.DAT, ADXDT*??*F.DAT, ADXXZ*??*.DAT, and ADXXY*??*.DAT (where *??* is the controller ID) from ADX_SPGM to a diskette and follow “Problem data collection procedure 3” on page 356. For all other responses, follow “Problem data collection procedure 3” on page 356.

Programmer response: Call the IBM Support Center for software assistance and provide the dump information.

System action: Logged as B5/S*xxx*/E192 with unique data, where S*xxx* can be:
S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S048 – Remote Command Processor
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W605 **W605 PROGRAM CANCELED DUE TO SYSTEM TABLE PROBLEM B*x*/S*xxx*/E*xxx* TABLE=*xx* NAME=*xxxxxxxx* RC=*xxxxxxxx* OP=*x***

Severity: 3

Explanation: The application was canceled because of an error with an operating system file or table.

The Op Code (OP=*x*) in the message indicates the following:

```
OP=G - Get of a table
OP=L - Lookup of a table
OP=S - Set of a table.
```

User response: Follow “Problem data collection procedure 3” on page 356.

Note: Message W507 is displayed at the store controller.

Programmer response:
For table ID X‘20’:
– This can indicate an error in the disk file table.
– Back up the disk and recreate the directories.
For other table IDs, call the IBM Support Center for software assistance and provide the dump information.

System action: Logged as B5/S*xxx*/E176 with unique data, where S*xxx* can be:
S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan

S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S048 – Remote Command Processor
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W606 W606 PROGRAM CANCELED DUE TO DISPLAY PROGRAM PROBLEM B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The application was canceled because the display could not be initialized.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:
1. Copy the file ADXACRIC.I86 onto a formatted diskette.
2. Call the IBM Support Center for software assistance.

System action: Logged as B5/S*xxx*/E208 with unique data, where S*xxx* can be:
S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S048 – Remote Command Processor
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W607 W607 A REQUEST WAS OMITTED DUE TO SCREEN PROBLEM B*x*/S*xxx*/E*xxx* SCREEN=*xxx* REF=*xxx* RC=*xxxxxxxx* OP=*x*

Severity: 4

Explanation: One of several requests or reports was omitted because of a bad return code from the display program or the screen interface routine.

The Op Code (OP=*x*) in the message indicates the following:

```
OP=P - Position cursor
OP=S - Display of screen file
OP=R - Position (REF=xxx) not found
OP=V - No visible fields.
```

User response: Follow “Problem data collection procedure 3” on page 356.

Note: Message W507 is displayed at the store controller.

Programmer response:

1. Copy the screen files from ADX_SPGM onto a formatted diskette using the COPY utility.
   Copy one of the following screen files based on the source (S*xxx*) displayed:
   S029 – ADXCS6AS.DAT
   S031 – ADXZFEAS.DAT
   S032 – ADXCSLAS.DAT
   S033 – ADXCSMAS.DAT
   S034 – ADXCSNAS.DAT
   S035 – ADXCSPAS.DAT
   S036 – ADXCSQAS.DAT
   S037 – ADXCSRAS.DAT
   S038 – ADXCSSAS.DAT
   S039 – ADXCSTAS.DAT
   S040 – ADXCSI?S.DAT
   S041 – ADXCSC?S.DAT
   S042 – ADXCSD?S.DAT
   S043 – ADXCSK0S.DAT
   S044 – ADXCSJMS.DAT
   S045 – ADXCSBCS.DAT
   S046 – ADXCSUAS.DAT
   S049 – ADXCS1AS.DAT
   S056 – ADXCSVAS.DAT
   S057 – ADXCS3AS.DAT
2. Call the IBM Support Center for software assistance.

System action: Logged as B5/S*xxx*/E193 with unique data, where S*xxx* can be:
S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S048 – Remote Command Processor
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W608 **W608 PROGRAM CANCELED DUE TO SCREEN PROBLEM B*x*/S*xxx*/E*xxx* SCREEN=*xxx* REF=*xxx* RC=*xxxxxxxx* OP=*x***

Severity: 3

Explanation: The application was canceled because of a bad return code from the display program or the screen interface routine.

The Op Code (OP=*x*) in the message indicates the following:

```
OP=P - Position cursor
OP=S - Display of screen file
OP=R - Position (REF=xxx) not found
OP=V - No visible fields.
```

User response: Follow “Problem data collection procedure 3” on page 356.

Note: Message W507 is displayed at the store controller.

Programmer response:

1. Copy the screen files from ADX_SPGM onto a formatted diskette using the COPY utility.
   Copy one of the following screen files based on the source (S*xxx*) displayed:
   S029 – ADXCS6AS.DAT
   S031 – ADXZFEAS.DAT
   S032 – ADXCSLAS.DAT
   S033 – ADXCSMAS.DAT
   S034 – ADXCSNAS.DAT
   S035 – ADXCSPAS.DAT
   S036 – ADXCSQAS.DAT
   S037 – ADXCSRAS.DAT
   S038 – ADXCSSAS.DAT
   S039 – ADXCSTAS.DAT
   S040 – ADXCSI?S.DAT
   S041 – ADXCSC?S.DAT
   S042 – ADXCSD?S.DAT
   S043 – ADXCSK0S.DAT
   S044 – ADXCSJMS.DAT
   S045 – ADXCSBCS.DAT
   S046 – ADXCSUAS.DAT
   S049 – ADXCS1AS.DAT
   S056 – ADXCSVAS.DAT
   S057 – ADXCS3AS.DAT
2. Call the IBM Support Center for software assistance.

System action: Logged as B5/S*xxx*/E193 with unique data, where S*xxx* can be:
S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S048 – Remote Command Processor
S049 – Audible Alarm

S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W609 **W609 A REQUEST WAS OMITTED DUE TO INSUFFICIENT STORAGE B*x*/S*xxx*/E*xxx* SCREEN=*xxx* SIZE=*xxxxx***

Severity: 4

Explanation: One of several requests or reports was omitted because there was no storage available.

User response: Follow “Problem resolution procedure” on page 358.

Programmer response: The system can be reconfigured to make more storage available.

System action: Logged as B5/S*xxx*/E177 with unique data, where S*xxx* can be:
S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S048 – Remote Command Processor
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W610 **W610 PROGRAM CANCELED DUE TO INSUFFICIENT STORAGE B*x*/S*xxx*/E*xxx* SCREEN=*xxx* SIZE=*xxxxx***

Explanation: The application was canceled because there was no storage available.

User response: Follow “Problem resolution procedure” on page 358.

Programmer response: The system can be reconfigured to make more storage available.

System action: Logged as B5/S*xxx*/E177 with unique data, where S*xxx* can be:
S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility

S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S048 – Remote Command Processor
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W611 **W611 AN IPL COMMAND PROCESSOR EVENT WAS LOGGED B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx***

Explanation: The IPL Command Processor has logged an event.
The event (E*xxx*) in the message indicates the following:

E001 – The attempt to delete the local copy of the IPL Command Processor output file (ADX_SDT1:ADXNSxxF.DAT, where xx refers to the store controller node ID) failed because of a file I/O error.

E002 – The attempt to write to the local copy of the IPL Command Processor output file (ADX_SDT1:ADXNS*xx*F.DAT, where *xx* refers to the store controller node ID) failed because of a file I/O error.

E003 – The attempt to write to the IPL Command Processor output file (ADX_SDT1:ADXNS*xx*F.DAT, where *xx* refers to the store controller node ID) failed because of a file I/O error.

E004 – An IPL Command Processor command has been completed. No user action is required.

E005 – The IPL Command Processor has detected a command that is not valid.

E006 – The IPL Command Processor initialization has failed. No commands were completed.

E007 – More IPL Command Processor messages were generated than could be saved. Some messages have been discarded.

E008 – A user has stopped an IPL Command Processor command by pressing F1.

User response: Follow “Problem data collection procedure 5” on page 356.

System action: Logged as B4/S002/E001, E002, E003, E004, E005, E006, E007, E008 with unique data. See the B4 information beginning on page 208.

W612 **W612 GRAPHICS INFORMATION B4/S024/Exxx VBE=xxxx X=xxxx Y=xxxx CLR=xxxxxxxx**

Severity: 3

Explanation: Graphics informational message. In the message, VBE is the Video BIOS Extension(VBE) version level on your system. For example 0102 would be VBE 1.2. *X*, *Y* and *CLR* describe the graphics mode (resolution and number of colors) in use on your system:

X — number of horizontal pixels in the resolution

Y — number of vertical pixels in the resolution

CLR — number of simultaneous colors
The event (E*xxx*) in the message indicates the following:

E104 – The configured graphics mode is not supported by the video adapter. A graphics mode with the resolution configured has been attempted with the next number of colors less than what was configured. If the configured resolution was not supported with any number of supported colors, then a graphics mode with the next lower resolution and the number of colors configured has been attempted.

E109 – The video system does not support graphics modes with 256 colors. A graphics mode with 64K colors and the configured graphics resolution will be used.

E120– Graphics information only.

User response: Use the following event information to help correct the problem.

E104 Be aware that the graphics mode in use is different than the graphics mode configured.

E109 – Be aware that the graphics mode in use is different than the graphics mode configured.

E120 No user response is required.

Programmer response: Use unique data “Format 80” on page 265 to determine the graphics mode in use for your system.

System action: Logged as B4/S024/E104 or E120. See the B4 information beginning on page 208.

W615 W615 PERFORMANCE DATA IS INVALID B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The system performance data is not valid because of a problem during data collection.

User response: Choose one of the following based on the Event (E*xxx*) that is displayed:

E006 – Make sure you are running Performance Reports on the same machine on which the data was collected. Otherwise, the accuracy of the reports will be affected and this error might occur. If the machine on which you are generating performance reports is the same machine on which the data was collected, follow “Problem data collection procedure 1” on page 355.

E008 – Rerun the procedure for “Requesting performance data” on page 378. Allow the procedure to run for at least 1/60 of the specified time. For example, let the procedure run at least 1 minute if the data collection time was 60 minutes.

Programmer response: The performance constants file, ADXILIPF.DAT, in the ADX_SDT1 subdirectory might be corrupted. Delete this file and IPL the system. This file will be recreated.

System action: Logged as B5/S035/E006, E008. See the B5 information beginning on page 221.

W616 W616 A REQUEST WAS OMITTED DUE TO SCREEN DATA PROBLEM B*x*/S*xxx*/E*xxx* SCREEN=*xxx* REF=*xxx* RC=*xxxxxxxx* OP=*x*

Severity: 4

Explanation: One of several requests or reports was omitted because of an error in the data or screen interface structure. Data in the disk file might be bad. **The Op Code (OP=*x*) in the message indicates the following:**

```
OP=B - Data in a file         OP=D - Data returned from
       that is to be used            screen interface is bad.
       as input to the        OP=F - 0 Reference Number.
       screen is bad.         OP=L - 0 Data Length.
OP=C - Screen interface       OP=N - No null.
       return code is bad.    OP=P - 0 Pointer.
```

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. Copy the screen files from ADX_SPGM onto a formatted diskette using the COPY utility.
   Copy one of the following screen files based on the source (S*xxx*) displayed:
   S029 – ADXCS6AS.DAT
   S031 – ADXZFEAS.DAT
   S032 – ADXCSLAS.DAT
   S033 – ADXCSMAS.DAT
   S034 – ADXCSNAS.DAT
   S035 – ADXCSPAS.DAT
   S036 – ADXCSQAS.DAT
   S037 – ADXCSRAS.DAT
   S038 – ADXCSSAS.DAT
   S039 – ADXCSTAS.DAT
   S040 – ADXCSI?S.DAT
   S041 – ADXCSC?S.DAT
   S042 – ADXCSD?S.DAT
   S043 – ADXCSK0S.DAT
   S044 – ADXCSJMS.DAT
   S045 – ADXCSBCS.DAT

S046 – ADXCSUAS.DAT
S049 – ADXCS1AS.DAT
S056 – ADXCSVAS.DAT
S057 – ADXCS3AS.DAT

2. Call the IBM Support Center for software assistance.

System action: Logged as B5/S*xxx*/E194 or E195 with unique data, where S*xxx* can be:
S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W617 **W617 PROGRAM CANCELED DUE TO SCREEN DATA PROBLEM B*x*/S*xxx*/E*xxx* SCREEN=*xxx* REF=*xxx* RC=*xxxxxxxx* OP=*x***

Severity: 3

Explanation: The application was canceled because of an error in the data or screen interface structure. Data in the disk file might be bad.

The Op Code (OP=*x*) in the message indicates the following:

```
OP=B - Data in a file        OP=F - 0 Reference Number.
       that is to be used    OP=I - Display Manager
       as input to the              application
       screen is bad.               initialization
OP=C - Screen interface             failed.
       return code is bad.   OP=L - 0 Dull Length.
OP=D - Data returned from    OP=N - No null.
       screen interface      OP=P - 0 Pointer.
       is bad.
```

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. Copy the screen files from ADX_SPGM onto a formatted diskette using the COPY utility.
   Copy one of the following screen files based on the source (S*xxx*) displayed:
   S029 – ADXCS6AS.DAT
   S031 – ADXZFEAS.DAT
   S032 – ADXCSLAS.DAT
   S033 – ADXCSMAS.DAT
   S034 – ADXCSNAS.DAT
   S035 – ADXCSPAS.DAT
   S036 – ADXCSQAS.DAT
   S037 – ADXCSRAS.DAT
   S038 – ADXCSSAS.DAT

S039 – ADXCSTAS.DAT
S040 – ADXCSI?S.DAT
S041 – ADXCSC?S.DAT
S042 – ADXCSD?S.DAT
S043 – ADXCSK0S.DAT
S044 – ADXCSJMS.DAT
S045 – ADXCSBCS.DAT
S046 – ADXCSUAS.DAT
S049 – ADXCS1AS.DAT
S056 – ADXCSVAS.DAT
S057 – ADXCS3AS.DAT

2. Call the IBM Support Center for software assistance.

System action: Logged as B5/S*xxx*/E194 or E195 with unique data, where S*xxx* can be:
S014 – HCP
S029 – Optical Drive Utility
S031 – Features Installation
S032 – Dump Formatter
S033 – Trace Formatter
S034 – System Log Scan
S035 – Performance Report
S036 – Start Trace/Performance
S037 – Problem Analysis Diskette
S038 – Report Module Level
S039 – Apply Software Maintenance (ASM)
S040 – Input Sequence Table utility
S041 – System Configuration utility
S042 – Print Configuration utility
S043 – Keyed File Utility
S045 – Control File Build utility
S046 – File Distribution utility
S049 – Audible Alarm
S056 – Streaming Tape Drive utility
S057 – File Compression/Decompression

See the B5 information beginning on page 221.

W618 **W618 SYSTEM EVENT LOG FILE *xxxxxxxxxxxx* WAS NOT FOUND B*x*/S*xxx*/E*xxx***

Severity: 3

Explanation: The System Log section, indicated by the message, is missing from the subdirectory ADX_SDT1.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Restore the file, indicated by the message, from the backup into the subdirectory ADX_SDT1.

System action: No logging in the store controller.

W619 **W619 PROGRAM *xxxxxxxx* WAS STARTED B*x*/S*xxx*/E*xxx* TYPE=*x***

Severity: 5

Explanation: The application indicated by the message has been started.

System action: Logged as B5/S024/E007 with unique data. See the B5 information beginning on page 221.

W620 **W620 PROGRAM *xxxxxxxx* HAS ENDED B*x*/S*xxx*/E*xxx* REASON=*x* TYPE=*x* RC=*xxxxxxxx***

Severity: 5

Explanation: The application, indicated by the message, has ended normally.

System action: Logged as B5/S024/E008 with unique data. See the B5 information beginning on page 221.

W621 **W621 REPORT MODULE LEVEL CANNOT BE STARTED B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx***

Severity: 3

Explanation: Report Module Level cannot be started because the Product Control File (PCF) cannot be opened or the data in this file is not valid. Each licensed product must have a PCF. These files, ADXC*f*T*p*D.DAT describe the module level and are necessary for Apply Software Maintenance (ASM). They must be located in either ADX_SPGM, ADX_IPGM, or ADX_UPGM.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Reconfigure the system to ensure that valid PCFs (ADXC*f*T*p*D.DAT) are present.

System action: Logged as B5/S038/E164 with unique data. See the B5 information beginning on page 221.

W622 **W622 A PROGRAM PRODUCT WAS OMITTED DUE TO A FILE PROBLEM B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* SUB=*x***

Severity: 4

Explanation: The Product Control File (PCF) contains product data that is not valid. Either Apply Software Maintenance (ASM) is active or the user created a file by the name of ADX_?PGM: ADXC*f*T*p*D.DAT in which the first character is not a "P".

User response: Retry the procedure.
If the problem persists, follow "Problem data collection procedure 1" on page 355.

Programmer response: Reconfigure the system to ensure that a valid PCF (ADX_?PGM: ADXC*f*T*p*D.DAT) is present. If the file (ADX_?PGM: ADXC*f*T*p*D.DAT) is not a PCF, rename it.

System action: Logged as B5/S038/E195 with unique data. See the B5 information beginning on page 221.

W623 **W623 OPERATOR STATUS HAS CHANGED B*x*/S*xxx*/E*xxx* TYPE=*x* ID=*xxxxxxxxxx***

Severity: 5

Explanation: The operator noted has requested a change in status:
Type 0 = signed on
Type 1 = signed off
Type 2 = disconnected

System action: Logged as B5/S024/E010 with unique data. See the B5 information beginning on page 221.

W624 **W624 PERFORMANCE DATA COLLECTION HAS ENDED B*x*/S*xxx*/E*xxx* TYPE=*x* REASON=*x* RC=*xxxxxxxx***

Severity: 3 if the trace ended in error or 5 if the trace ended normally.

Explanation: Performance data collection has ended.

System action: Logged as B5/S024/E005 with unique data. See the B5 information beginning on page 221.

W625 **W625 TRACE DATA COLLECTION HAS ENDED B*x*/S*xxx*/E*xxx* REASON=*x* RC=*xxxxxxxx***

Severity: 3 if the trace ended in error or 5 if the trace ended normally.

Explanation: Trace data collection has ended.

System action: Logged as B5/S024/E003 with unique data. See the B5 information beginning on page 221.

W626 **W626 PROBLEM WITH SYSTEM MESSAGE FILE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* FUNC=*xx***

Severity: 3

Explanation: The system message file ADX_SPGM:ADXACRMF.DAT could not be opened or read.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Restore the file ADX_SPGM:APXACRMF.DAT, from the appropriate installation diskette or CD-ROM to the ADX_SPGM subdirectory, using the Restore command.

If the problem persists, continue problem determination using the hardware documentation for your store controller.

System action: Logged as B4/S043/E001 by Keyed File Utility with unique data. See the B4 information beginning on page 208.

W627 W627 DISPLAY PROGRAM PROBLEM B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* FUNC=*xx*

Severity: 3

Explanation: An error return code was received from the display program.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Verify that the display program file ADX_SPGM:ADXCSK0S.DAT is up-to-date and in the proper subdirectory.

If the problem persists:

1. Follow the procedure for “Requesting a store controller storage dump” on page 359.
2. Call the IBM Support Center for software assistance and provide the store controller dump information.

System action: Logged as B4/S043/E002 by Keyed File Utility with unique data. See the B4 information beginning on page 208.

W628 W628 FILE COULD NOT BE ACCESSED B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* FUNC=*xx*

Severity: 3

Explanation: There was an error while accessing a file.

User response: Repeat the steps that caused the problem.

If the problem persists, follow “Problem data collection procedure 1” on page 355.

Programmer response: Verify that the requested file is present.

If the file is present, base your action on the return code displayed in this message.

If the file is *not* present, continue problem determination using the service documentation for your store controller.

System action: Logged as B4/S043/E003 by Keyed File Utility with unique data. See the B4 information beginning on page 208.

W629 W629 INCORRECT PARAMETERS PASSED TO KEYED FILE UTILITY B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* PARM=*x*

Severity: 3

Explanation: The parameters passed to the Keyed File Utility on the command line in *option 7* Command Mode or from the host are not correct. The file to be processed is indicated by FN=*xxxxxxxxxxxx*. The parameter being processed at the time of the error is indicated by PARM=*x*. For a description of the parameter (PARM), refer to *IBM 4690 OS: User's Guide*.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Check the parameters and change the incorrect one.

System action: Logged as B4/S043/E004 by Keyed File Utility with unique data. See the B4 information beginning on page 208.

W630 W630 NULL KEY NOT VALID IN INPUT FILE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx*

Severity: 3

Explanation: A key that contained all binary zeros was found in the direct file. This key is not valid.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Find any keys in the direct file that contain only binary zeros and remove these records or correct the keys.

System action: Logged as B4/S043/E005 by Keyed File Utility with unique data. See the B4 information beginning on page 208.

W631 **W631 FILE ACCESSED IS NOT A KEYED FILE OR NOT FOUND B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* ERROR=*x***

Severity: 3

Explanation: The file name given was not created as a keyed file (error code = 1) or the file was not found (error code = 2).

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Verify that the file name and its attributes are correct.

System action: Logged as B4/S043/E006 by Keyed File Utility with unique data. See the B4 information beginning on page 208.

W632 **W632 KEYED FILE UTILITY STARTED B*x*/S*xxx*/E*xxx***

Severity: 5

Explanation: The Keyed File Utility was started from the command line in option 7 *Command Mode* or from within a .BAT file.

System action: Logged as B5/S043/E007 by Keyed File Utility. See the B5 information beginning on page 221.

W633 **W633 KEYED FILE UTILITY ENDED B*x*/S*xxx*/E*xxx***

Severity: 5

Explanation: The Keyed File Utility has ended successfully.

System action: Logged as B5/S043/E008 by Keyed File Utility. See the B5 information beginning on page 221.

W634 **W634 KEYED FILE UTILITY ENDED ABNORMALLY B*x*/S*xxx*/E*xxx***

Severity: 4

Explanation: The Keyed File Utility has ended with an error.

User response: Follow “Problem data collection procedure 5” on page 356.

Programmer response: Find the error in the System Log with B4/S043/E*xxx*. This error caused the termination of the Keyed File Utility. Base your response on this error.

System action: Logged as B5/S043/E009 by Keyed File Utility. See the B5 information beginning on page 221.

W635 **W635 FILE PROBLEM WITH ADXCSONF.DAT - SYSTEM DISPLAY QUEUE B*x*/S*xxx*/E*xxx* TYPE=*x* RC=*xxxxxxxx***

Severity: 3

Explanation: There was a problem accessing the System Display Queue file (ADXCSONF.DAT) used for the SYSTEM MESSAGE DISPLAY panel at IPL time. The file was created with the minimum size.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Alter the size of the System Display Queue file by executing Change Configuration.

System action: Logged as B5/S024/E006 by the operator console facility (OCF), with unique data. See the B5 information beginning on page 221.

W636 W636 APPLY SOFTWARE MAINTENANCE IS RUNNING...

Severity: 5

Explanation: Software maintenance is being moved across subdirectories. After software maintenance has been activated, this message will be cleared from the screen without operator intervention.

System action: No logging in the store controller.

W637 W637 LOADING CONTROLLER STORAGE...

Severity: 5

Explanation: The requested changes have been made to the active subdirectory, ADX_?PGM. An IPL is required to load the new version into resident storage. The store controller will IPL.

System action: No logging in the store controller.

W638 W638 APPLY SOFTWARE MAINTENANCE FAILED B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* LIB=*x* ACT=*x*

Severity: 3

Explanation: Maintenance could not be moved across subdirectories. Maintenance of the failing product that was already moved has been moved back. This message will be cleared from the screen without operator intervention.

The event (E*xxx*) in the message indicates the following:

E224 – Undefined error path.
E225 – Maintenance level is not valid.
E226 – Checksum verification failed.
E227 – Read error while reading a Product Control File (PCF) record.
E228 – Format of the PCF record is bad.
E229 – Open error while opening the PCF.
E230 – Backout function returned a bad return code.
E231 – Read error while reading a file or module.
E232 – Search function returned a bad return code.
E233 – Activation file problem.
E234 – Write error while writing a PCF record.
E235 – Backup function returned a bad return code.
E236 – Read or write error while updating the PCF.
E237 – Compress function returned a bad return code.
E238 – Delete error.
E239 – Rename error.
E240 – Rename error while renaming to a drive other than C.

User response: Follow “Problem data collection procedure 9” on page 357.

Programmer response: Use the event number to determine the cause of the problem. If the problem was due to an I/O error, FN=*xxxxxxxxxxxx* and RC=*xxxxxxxx* will be helpful in determining which file failed and for what reason.

LIB=*x* is the seventh letter of the PCF for the product being activated. For example: S=IBM 4690 OS Version 5.
ACT=*x* determines what action was taking place at the time of the problem. For example: T=Test, A=Accept, and C=Cancel.

Activate maintenance again after the problem has been corrected.

System action: Logged as B5/S039/E224 through E240 with unique data. See the B5 information beginning on page 221.

W639 W639 PROBLEM WITH STREAMING TAPE ADAPTER OR DRIVE B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The attempted streaming tape operations cannot be performed.

The event (E*xxx*) in the message indicates the following:

E001 – The streaming tape device driver is not installed.
E003 – The tape drive was powered Off, then powered On.

E004 – The tape cartridge was unexpectedly removed.
E005 – An unrecoverable read data error was detected.
E006 – An unrecoverable write data error was detected.
E007 – An unsuccessful tape rewind occurred.
E008 – There was no response from the streaming tape drive.
E009 – A problem was detected in the tape adapter.
E010 – Unexpected end-of-data. The tape cartridge contains a file whose backup was unexpectedly terminated.
E011 – An illegal command was issued to the streaming tape drive.

User response: Choose one of the following based on the event (E*xxx*) that is displayed:

E001 – If the adapter is installed, continue problem determination using the service documentation for the Streaming Tape Adapter.

E003 or E004 –

- If operator action caused this event, retry the failing tape utility function.
- If operator action did not cause this event, continue problem determination using the service documentation for the Streaming Tape Adapter.

E005 or E006 –
The tape cartridge is the most likely cause of this problem. Continue problem determination using the service documentation for the Streaming Tape Adapter.

E007 – The tape cartridge is the most likely cause of this problem. The device has detected that a stalled cartridge, a broken tape, a position error, or a sensor error has occurred. Continue problem determination using the service documentation for the Streaming Tape Adapter.

E008 – Verify that the streaming tape drive is powered On and correctly connected to the store controller.
- If the drive is powered On and correctly connected, continue problem determination using the service documentation for the Streaming Tape Adapter.
- If the drive is not powered On and correctly connected, power On the drive or connect it correctly.

E009 – The Streaming Tape Adapter is the most likely cause of this problem. Continue problem determination using the service documentation for the Streaming Tape Adapter.

E010 – This problem can be caused by an operator-initiated cancel of a backup function or the tape utility detecting a data error during backup. In either case, the tape is free of defects. A complete backup of the failing file must be performed to enable subsequent list or restore functions.

E011 – This problem can be caused by using a 6157-002 tape drive to write to a tape that has been used in a 6157 tape drive. Before the tape can be used in a 6157-002 tape drive, it must be erased. The erase stops upon completion. When the application is restarted, the tape drive accepts a write request. If you get this event and the above condition does not apply, there is a hardware problem that is most likely in the tape drive.

System action: Logged as B4/S056/E001, E003, E004, E005, E006, E007, E008, E009, E010, or E011 with unique data. See the B4 information beginning on page 208.

W640 W640 DISKETTE OPERATIONS CONFLICT WITH STREAMING TAPE B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: Diskette drive operations are currently in process and this prevents the use of the streaming tape drive. Streaming tape drive operations and diskette drive operations cannot be performed at the same time.

User response: Complete or cancel the processing of any applications using the diskette drive, then retry the streaming tape operation.

System action: Logged as B4/S056/E002. See the B4 information beginning on page 208.

W641 W641 KEYED FILE UTILITY CAN NOT ALLOCATE REQUIRED MEMORY B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The Keyed File Utility cannot be started because the minimum required memory is not available.

User response: Stop another window to free memory or wait until there are less processes running in the system. Then repeat starting the Keyed File Utility.

System action: Logged as B4/S043/E010 by Keyed File Utility. See the B4 information beginning on page 208.

W642 **W642 TABLE OVERFLOW - EXCESSIVE RECORDS HASHED TO A BLOCK B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* BLOCK=*xxxxxxxx***

Severity: 3

Explanation: Creation of a keyed file from a direct file or reporting of chaining statistics could not continue because too many records hashed to BLOCK=*xxxxxxxx* in file name FN=*xxxxxxxxxxxx*. The probable cause is the specification of an excessively small randomizing divisor relative to the number of records in the input file.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Analyze the input file to determine the cause of the problem. Adjust the input parameters to the Keyed File Utility to eliminate the error condition.

System action: Logged as B4/S043/E011 by Keyed File Utility. See the B4 information beginning on page 208.

W643 **W643 THE KEYED FILE UTILITY IS RUNNING IN ANOTHER WINDOW B*x*/S*xxx*/E*xxx***

Severity: 3

Explanation: The Keyed File Utility could not be started because the Keyed File Utility is running in another window.

User response: Wait until the Keyed File Utility has ended in the other window. Then repeat starting the Keyed File Utility.

System action: Logged as B4/S043/E012 by Keyed File Utility. See the B4 information beginning on page 208.

W644 **W644 COMMAND BYPASSED - PREVIOUS CHECKPOINT NOT CANCELED B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx***

Severity: 3

Explanation: The Keyed File Utility received a request from a command line to create file FN=*xxxxxxxxxxxx* from a direct file. The command was bypassed because a checkpoint exists for a previous function that failed.

User response: Cancel the checkpoint or restart from the checkpoint and allow the previous function to complete. Then repeat the function that was bypassed.

Programmer response: Consider using functions 7, 8, or 9 in your command line to prevent this problem from recurring.

System action: Logged as B4/S043/E013 by Keyed File Utility. See the B4 information beginning on page 208.

W645 **W645 PROBLEM WITH APPLICATION CONFIGURATION FILE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx***

Severity: 1

Explanation: The application configuration file, ADX_SPGM:ADXDI??F.DAT, could not be opened or read. The ?? characters in the file name shown as wildcards designate the node name of the store controller that initiated this message. The primary and secondary applications on this controller do not function until this problem is corrected.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: The primary and secondary applications must be reconfigured for this store controller.

Note: If the problem persists, continue problem determination using the service documentation for your store controller.

System action: Logged as B5/S024/E023 by the System Menu Initialization Facility with unique data. See the B5 information beginning on page 221.

W646 **W646 PROBLEM WITH OPERATOR IDENTIFICATION FILE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx***

Severity: 1

Explanation: The operator identification file, $DXCSOUF, could not be opened or read. When you attempt to log on to a store controller that cannot access this file, the message 'Problem accessing necessary file' displays in the lower left corner of the logon screen. You will not be able to log on to the store controller that initiated this message until the operator identification file is replaced.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: The default file name for the logical file name $DXCSOUF is ADX_IDT1:ADXCSOUF.DAT. If you have placed $DXCSOUF in another directory or defined it as another file name, replace the file using that directory or file name. Use the file ADX_IDT1:ADXCSOUF.DAT found on the appropriate installation diskette to replace the missing file. This enables you to log on to the system using the default ID and password.

Note: If the problem persists, continue problem determination using the service documentation for your store controller.

System action: Logged as B5/S024/E022 by the System Menu Initialization Facility with unique data. See the B5 information beginning on page 221.

W647 **W647 PROBLEM WITH BACKGROUND APPL. CONFIGURATION FILE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx***

Severity: 1

Explanation: The background application configuration file, ADX_SPGM:ADXDK??F.DAT, could not be opened or read. The ?? characters in the file name shown as wildcards designate the node name of the store controller that initiated this message. The background applications on this controller will not function until this problem is corrected.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: The background applications must be reconfigured for this store controller.

Note: If the problem persists, continue problem determination using the service documentation for your store controller.

System action: Logged as B5/S024/E021 by the System Menu Initialization Facility with unique data. See the B5 information beginning on page 221.

W648 **W648 THE SHARED RUNTIME LIBRARY FILE COULD NOT BE FOUND B*x*/S*xxx*/E*xxx***

Severity: 1

Explanation: The shared run-time library file needed to load a program could not be opened or read. This message is always logged in conjunction with a W650 message and indicates that an application ended abnormally with the return code C0404188. All programs that use this shared run-time library file will not run until this problem is corrected.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: The shared run-time library file needed by the program that logged the W650 message must be replaced. The shared run-time library file should be placed in either the same directory as the program or in the ADX_SPGM directory.

Note: It is recommended that only one copy of the IBM 4680 BASIC shared run-time library file, ADXACRBW.SRL, exist on the system and that it be kept in the ADX_SPGM subdirectory. If the problem persists, continue problem determination using the service documentation for your store controller.

System action: Logged as B5/S024/E024 with unique data. See the B5 information beginning on page 221.

W649 **W649 THE SHARED RUNTIME LIBRARY FILE IS CORRUPTED B*x*/S*xxx*/E*xxx***

Severity: 1

Explanation: The shared run-time library file needed to load a program has been corrupted. This message is always logged in conjunction with a W650 message and indicates that an application ended abnormally with the return code C040418E. All programs that use this shared run-time library file will not run until this problem is corrected.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: The shared run-time library file needed by the program that logged the W650 message must be replaced. The shared run-time library file should be placed in either the same directory as the program or in the ADX_SPGM directory.

Note: It is recommended that only one copy of the IBM 4680 BASIC shared run-time library file, ADXACRBW.SRL, exist on the system and that it be kept in the ADX_SPGM subdirectory. If the problem persists, continue problem determination using the service documentation for your store controller.

System action: Logged as B5/S024/E025 with unique data. See the B5 information beginning on page 221.

W650 **W650 PROGRAM *xxxxxxxx* HAS ENDED ABNORMALLY B*x*/S*xxx*/E*xxx* REASON=*x* TYPE=*x* RC=*xxxxxxxx***

Severity: 3

Explanation: The application, indicated by the message, has ended abnormally.

System action: Logged as B5/S024/E008 with unique data. See the B5 information beginning on page 221.

W651 **W651 PROBLEM WITH ALTERNATE LOGO FILE - OPEN FAILED B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx***

Severity: 3

Explanation: The alternate logon screen file ADX_IPGM:ADXLOGOD.DAT could not be opened.

User response: Follow “Problem data collection procedure 1” on page 355.

System action: Logged as B5/S024/E026 by the System Menu Initialization Facility with unique data. See the B5 information beginning on page 221.

W652 **W652 PROBLEM WITH ALTERNATE LOGO FILE - FILE TOO LARGE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx***

Severity: 3

Explanation: The alternate logon screen file ADX_IPGM:ADXLOGOD.DAT is too large.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: The alternate logon screen file should be less than 3000 bytes. Refer to *IBM 4690 OS: User's Guide* for information on changing the logon screen.

System action: Logged as B5/S024/E026 by the System Menu Initialization Facility with unique data. See the B5 information beginning on page 221.

W653 **W653 PROBLEM WITH ALTERNATE LOGO FILE - READ FILE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx***

Severity: 3

Explanation: The alternate logon screen file ADX_IPGM:ADXLOGOD.DAT could not be read.

User response: Follow “Problem data collection procedure 1” on page 355.

System action: Logged as B5/S024/E026 by the System Menu Initialization Facility with unique data. See the B5 information beginning on page 221.

W654 **W654 PROBLEM WITH ALTERNATE LOGO FILE - LINE TRUNCATED B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx***

Severity: 5

Explanation: A line in the alternate logon screen file contains more than 79 characters. The line has been truncated.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Check the length of the lines in the alternate logon screen file. Modify any line greater than 79 characters so that the data meets the specifications for modifying the alternate logon screen file in the *IBM 4690 OS: User's Guide*.

System action: Logged as B5/S024/E026 by the System Menu Initialization Facility with unique data. See the B5 information beginning on page 221.

W655 **W655 ERROR ACCESSING TERMINAL CONFIGURATION FILES B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* OP=*xx***

Severity: 3

Explanation: An error occurred involving the terminal configuration files during IPL of the controller/terminal.

The event (E*xxx*) in the message indicates the following:

E049 – There is a keyed file access problem involving the terminal configuration files ADX_SPGM:ADXCSCTF.DAT or ADX_SPGM:ADXCSCDF.DAT (terminal load definition and terminal device group, respectively). If FN=ADXTSSDF.DAT, there is an access problem with the terminal screen saver data file. The terminal screen saver default information is used.

E052 – The terminal number that is specified under Controller Characteristics in controller configuration is not defined as the corresponding terminal type.

The Op Code (OP=*x*) in the message indicates the following:

```
OP=OP - Open failure
OP=RD - Read failure
OP=SP - Special failure
OP=TE - Terminal mismatch
OP=OR - Open or read failure
```

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: The terminal configuration files for the 4683, 4693 or 4694 are not correct and must be reconfigured. If the problem persists, continue problem determination using the service documentation for your system.

System action: Logged as B5/S030/E049 or E052 by the System Menu Initialization Facility with unique data. See the B5 information beginning on page 221.

W658 **W658 CONTROLLER *xx* REQUESTED EXIT BACKUP - UNABLE TO COMPLY B*x*/S*xxx*/E*xxx***

Severity: 2

Explanation: A controller for which this controller is backing up terminals has requested that this controller exit backup, but this controller does not have the resources at this time to disconnect the terminals. The requesting controller issues another EXIT BACKUP request in approximately five minutes.

User response: None required.

System action: Logged as B5/S018/E004. See the B5 information beginning on page 221.

W659 **W659 SYSTEM MENU DRIVEN EVENT HAS OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx***

Severity: Variable

Explanation: A system menu-driven event has occurred.

The event (E*xxx*) in the message indicates the following:

E002 – Trace data collection was successfully started.

E004 – Performance data collection has started.

E009 – A terminal system control function has been requested by the operator.

E011 – An attempt that was not valid was made to sign on to the system.
E016 – The operator has requested a communications control function.
E018 – The operator attempted to sign on using a locked-out ID.
E020 – The operator has requested a store controller function.
E027 – Wrong EC level for 4683 ANPOS.

User response: Take action based on the event logged.

System action: Logged as B5/S024/E002, E004, E009, E011, E016, E018, E020, or E027 with unique data. See the B5 information beginning on page 221.

W660 W660 TAPE DRIVE STATISTICS LOGGED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: Tape drive statistics have been logged. The unique data is tape drive statistics.

System action: Logged as B4/S055/E010 with unique data. See the B4 information beginning on page 208.

W661 W661 AUDIBLE ALARM ERROR HAS OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: An audible alarm error has occurred.
The event (E*xxx*) in the message indicates the following:
E012 – The system message audible alarm control file ADX_SPGM:ADXCS1CF.DAT could not be opened. No system message audible alarm processing occurs.
E013 – The system message audible alarm control file could not be read. No system message audible alarm processing occurs.
E014 – The system message audible alarm message file ADX_SDT1:ADXCS1AF.DAT could not be opened. No system message audible alarm processing occurs.
E015 – The system message audible alarm message file could not be read. No system message audible alarm processing occurs.

User response: Take action based on the event logged.

System action: Logged as B5/S024/E012, E013, E014, or E015 with unique data. See the B5 information beginning on page 221.

W662 W662 DUPLICATE TERMINAL *xxx* DETECTED B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The token-ring or Ethernet Transporter has detected that terminal *xxx* has attempted to connect with this controller, but another terminal with the same terminal number is already connected. The second terminal with this number will not be allowed to connect to the controller.

This message also appears when a terminal with the `Z001` prompt displayed is waiting for the entry of a terminal number and a different terminal is zeroed.

User response: One of the terminals has been configured with a wrong terminal number and the number must be changed. Refer to *IBM 4690 OS: User's Guide* for information about changing the terminal number.

System action: Logged as B5/S018/E001. See the B5 information beginning on page 221.

W663 W663 FILE DISTRIBUTION UTILITY ERROR HAS OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: A file distribution utility error has occurred.
The event (E*xxx*) in the message indicates the following:
E001 – A failure occurred during an OPEN of a file. The appropriate function was *modify file attributes*.
E002 – A failure occurred while performing a GET of directory information of a file. The appropriate function was *modify file attributes*.
E003 – A failure occurred while performing a SET of file attributes of a file. The appropriate function was *modify file attributes*.

E004 – A failure occurred while attempting to distribute a file.
E005 – A failure occurred while attempting to open a file for distribution.
E006 – The user requested an unknown function.
E007 – The user did not provide enough parameters for command line or background processing.
E008 – An incorrect file distribution attribute was given for the file whose attributes were to change.
E009 – Unable to display any Exception Log data. A temporary work file could not be created.
E012 – The user attempted to distribute a file from a controller that did not own the file.
E013 – The user attempted to modify distribution attributes of a file from a store controller that did not own the file, under the current attributes or the new attributes.
E014 – When attempting to change file distribution attributes across the LAN (MCF Network), no master store controller was found or the controller is a non-MCF controller.
E015 – When attempting to change file distribution attributes across the LAN (MCF Network), no file server was found or the controller is a non-MCF controller.
E016 – A global file-name character (asterisk) was found in the filename. These characters are only allowed when specifying an entire directory, such as (*directory**.*).

User response: Take action based on the event logged.

System action: Logged as B5/S046/E001, E002, E003, E004, E005, E006, E007, E008, E009, E012, E013, E014, E015, or E016 with unique data. See the B5 information beginning on page 221.

W664 W664 EXCEPTION LOG ENTRY ERASED B*x*/S*xxx*/E*xxx*

Severity: Variable

Explanation: An exception log entry has been erased. This entry was for tracking purposes only.
E010 – An entry was erased.
E110 – The exception log was cleared.

System action: Logged as B5/S046/E010, E110 with unique data. See the B5 information beginning on page 221.

W665 W665 EXCEPTION LOG ENTRY COULD NOT BE ERASED B*x*/S*xxx*/E*xxx*

Severity: Variable

Explanation: An exception log entry could not be erased.
E011 – An entry could not be erased.
E111 – The exception log could not be cleared.
E112 – An attempt to clear the message log was made when it was already empty.

System action: Logged as B5/S046/E011, E111, E112 with unique data. See the B5 information beginning on page 221.

W666 W666 REMOTE COMMAND PROCESSOR ERROR HAS OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: A remote command processor error has occurred.
The event (E*xxx*) in the message indicates the following:
E001 – A command file read failure occurred.
E002 – Command file could not be opened.
E004 – There are no background task slots available. Remote command processor (RCP) could not start the application named in the command file.
E005 – The application named in the command file is missing or the name is incorrect.
E006 – The RCP request to application services to start the application named in the command file failed.
E016 – The RCP selection file (ADX_IDT1:ADXCSHCF.DAT) could not be opened.
E017 – The RCP selection file (ADX_IDT1:ADXCSHCF.DAT) could not be read.
E018 – The RCP command failed because an error occurred while opening the command pipe on the specified node.

User response: Take action based on the event logged.

System action: Logged as B5/S048/E001, E002, E004, E005, E006, E016, E017, or E018 with unique data. See the B5 information beginning on page 221.

W667 W667 FILE COMPRESSION/DECOMPRESSION ERROR B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: A file compression/decompression error has occurred.

The event (E*xxx*) in the message indicates the following:

E001 – The file cannot be decompressed because it was not previously compressed.

E002 – Storage could not be allocated. The function is not performed.

E003 – File decompression failed because the decompressed file size is not the same as the original uncompressed file size.

E004 – File decompression failed because the current size of the compressed file does not match the size specified in the header.

User response: Take action based on the event logged.

System action: Logged as B5/S057/E001, E002, E003, or E004 with unique data. See the B5 information beginning on page 221.

W668 W668 TERMINAL *xxx* REQUESTING CONNECTION - NOT DEFINED B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The token-ring or Ethernet Transporter has detected that a partner terminal that is not defined as supported by the logging controller, but whose partner terminal is defined, has attempted to establish communications with the logging controller. The terminal will not be allowed to communicate with the controller.

User response: Define the token-ring or Ethernet terminal as one that is supported by the logging controller, or change the terminal number by running STC on the terminal.

System action: Logged as B5/S018/E008. See the B5 information beginning on page 221.

W672 W672 DUMP ANALYZER HAS ENDED ABNORMALLY B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The dump analyzer was not able to analyze the dump.

The event (E*xxx*) in the message indicates the following:

E210 – Dump analyzer message file could not be opened.

E211 – Dump analyzer parm file could not be opened.

E212 – Illegal parameter for dump type.

E213 – Open dump analyzer output file failed.

E214 – Dump file name or BSX file name missing.

E215 – Dump is not valid.

System action: Logged as B5/S032/E*xxx* with unique data. See the B5 information beginning on page 221.

W673 W673 SCSI DEVICE DRIVER FAILED TO INSTALL B*x*/S*xxx*/E*xxx* UNIT=*x*

Severity: 2

Explanation: The Small Computer System Interface (SCSI) device driver, ADXSCS0L.286, returned an error during the install.

The event (E*xxx*) in the message indicates the following:

E003 – The device is not supported because it has multiple Logical Unit Numbers.

E004 – The device is not supported because ABIOS logical data pointers are used.

E005 – No more logically installed devices (LID) available. The count of devices indicated that more LIDs should be available.

E006 – The maximum number of supported SCSI devices was exceeded.

E007 – The unit number is not valid.

E008 – The unit is already installed.

E010 – The device did not respond.

E031 – There is insufficient memory.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the event (E*xxx*) in the message.

System action: Logged as B5/S028/E003, E004, E005, E006, E007, E008, E010, or E031.

See the B5 information beginning on page 221.

W674 W674 SCSI DEVICE DRIVER FAILED TO INSTALL B*x*/S*xxx*/E*xxx* UNIT=*x* ABIOS RC=xxxx

Severity: 2

Explanation: The SCSI Device Driver, ADXSCS0L.286, returned an error from ABIOS during the installation.
The event (E*xxx*) in the message indicates the following:
E032 – ABIOS required staging on single stage request.
E033 – ABIOS returned an error.

User response: Follow “Problem data collection procedure 2” on page 356.

Programmer response: Look up the last status received in the ABIOS guide under ABIOS return codes.

System action: Logged as B5/S028/E032 or E033 with unique data.

See the B5 information beginning on page 221.

W675 W675 SCSI DEVICE DRIVER FAILED TO INSTALL B*x*/S*xxx*/E*xxx* UNIT=*x* ABIOS RC=xxxxxxxx

Severity: 2

Explanation: The SCSI Device Driver, ADXSCS0L.286, returned an error from the operating system during the installation.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the return code (RC=) in the message.

System action: Logged as B5/S028/E003, E004, E005, E006, E007, E008, E031, E032, or E033 with unique data.

See the B5 information beginning on page 221.

W676 W676 CRC FOR LOAD VERSION FAILED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx* RC=*xxxxxxxx*

Severity: 3

Explanation: A problem was detected with the checksum routine in OCF for terminal boot image files.

User response: This is an informational message.

System action: Logged as B5/S024/E031.

See the B5 information beginning on page 221.

W677 W677 TERMINAL LOAD IMAGE BUILD SUCCESSFUL B*x*/S*xxx*/E*xxx*

Severity: 5

Explanation: The common point-of-sale terminal load images, ADX_SPGM:ADXRT8GF.DAT and ADX_SPGM:ADXRT2GF.DAT, were built successfully from all of their components.

User response: None. The common terminal load images are present on the store controllers and can be loaded into the point-of-sale terminals.

System action: Logged as B5/S030/E060.

See the B5 information beginning on page 221.

W678 W678 TERMINAL LOAD IMAGE BUILD FAILURE B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 1

Explanation:

- An error occurred during the creation of the common point-of-sale terminal load image, ADX_SPGM:ADXRT8GF.DAT, or during the creation of the RAM disk X: or RAM disk Y: compressed image. The return code in the unique data specified the reason for the failure.
- **For ADXRT8GL.DAT, the event (E*xxx*) in the message indicates the following:**
  E061 – The loadshrink image could not be done successfully. This event with the following RC, means:
  - 00000002 – This return code indicates that the corresponding font files were not properly created or the font files were not created and collected as part of the bundled package during a remote migration.
  - 0000001E – The files that are needed to build loadshrink are either missing or unreachable.
  - C0204010 – The files that are needed to build loadshrink are either missing or unreachable.
  - FFFFFFFE – This return code can indicate that ADXRT8GL.DAT is in use, and the loadshrink image build function cannot access the file. If terminals are loading and accessing this file, you must wait until the terminals have finished accessing this file before starting a loadshrink image build.

  E062 – The loadshrink image could not be done because the RAM disk preload is too large.
  E063 – WARNING - A RAM disk preload of *xxx* bytes is too large for efficient loading of PXE-loaded terminals.
- **For ADXNSZAL, the event (E*xxx*) in the message indicates the following:**
  – **E064** – vx_tinrd can not be created due to a missing file.
- **For ADXTRM0L, the event (E*xxx*) in the message indicates the following:**
  E080 – A programming error has occurred in ADXTRM0L.
  E081 – One or more of the files contained in the list files ADX_IDT1:ADXTRMXF.DAT or ADX_IDT1:ADXTRMYF.DAT does not exist or could be opened.
  E082 – The message error log file, ADX_SDT1:ADXTRMLF.DAT, could not be opened.
  E083 – The compressed image files, ADX_SDT1:ADXTRM1F.DAT or ADX_SDT1:ADXTRM2F.DAT, could not be created or updated.
  E084 – After decompression, the files specified for inclusion in the compressed image files, ADX_SDT1:ADXTRM1F.DAT or ADX_SDT1:ADXTRM2F.DAT, will exceed 64 MB of space on the terminal RAM disk.
  E085 – More than 512 files were specified for inclusion in the compressed image files, ADX_SDT1:ADXTRM1F.DAT or ADX_SDT1:ADXTRM2F.DAT.
  E086 – The existing compressed image files, ADX_SDT1:ADXTRM1F.DAT or ADX_SDT1:ADXTRM2F.DAT, could not be erased.
  E087 – The temporary compressed image file, ADX_SDT1:ADXTRMTF.DAT, could not be renamed to ADX_SDT1:ADXTRM1F.DAT or ADX_SDT1:ADXTRM2F.DAT.
  E088 – An incorrect or unsupported command line parameter was specified.
  E089 – A programming error has occurred in ADXTRM0L.
  E090 – The list file ADX_IDT1:ADXTRM?F.DAT corresponding to command line parameter -X or -Y does not exist or could not be opened.

User response:

- Follow “Problem data collection procedure 1” on page 355. Also, for S030 review the ADX_SPGM:ADXRTCCL.LOG and ADX_SPGM:ADXNSZAL.LOG files, or for S047 review the ADX_SDT1:ADXTRMLF.DAT file for information regarding the program that builds the common terminal image. For RC=C0204010, check that your path variable includes the logical names of default:, system:, and JAVABIN:.

Programmer response: Review return code and execution trace file ADX_SPGM:ADXRTCCL.LOG or ADX_SDT1:ADXTRMLF.DAT to determine the cause of the error.

System action: Logged as B5/S030/E061, B5/S030/E062, or B5/S047/Exxx with unique data for ADXRTCCL.

Logged as B5/S047/E080, E081, E082, E083, E084, E085, E086, E087, E088, E089, or E090 for ADXTRM0L.

See the B5 information beginning on page 221.

W679 W679 STREAMING TAPE DRIVE ERROR B4/S056/E*xxx*

Severity: 3

Explanation: The attempted streaming tape drive operation cannot be performed.

The event (E*xxx*) in the message indicates the following:
E019 – Peripheral device write fault. This normally indicates a hardware problem with the tape cartridge.
E020 – No write current.
E021 – Excessive write errors.

E022 – Logical unit not ready, cause not reportable.
E023 – Logical unit is in process of becoming ready.
E024 – Logical unit not ready, initializing command required.
E025 – Logical unit not ready, manual intervention required.
E026 – Logical unit not ready, format in progress.
E027 – Logical unit not ready, operation in progress.
E028 – Logical unit does not respond to selection.
E029 – Multiple peripheral devices selected.
E030 – Logical unit communication failure.
E031 – Logical unit communication time-out.
E032 – Logical unit communication parity error.
E033 – Logical unit communication CRC error (Ultra-DMA/32).
E034 – Track following error.
E035 – Head select fault.
E036 – Error log overflow.
E040 – Write error.
E041 – Compression check miscompare error.
E042 – Data expansion occurred during compression.
E043 – Block not compressible.
E044 – Unrecovered read error.
E045 – Read retries exhausted.
E046 – Error too long to correct.
E047 – Multiple read errors.
E048 – Incomplete block read.
E049 – No gap found.
E050 – Miscorrected error.
E051 – Decompression CRC error.
E052 – Cannot decompress using declared algorithm.
E053 – Block sequence error.
E054 – Random positioning error.
E055 – Mechanical positioning error.
E056 – Positioning error detected by read of medium.
E057 – Defect list error.
E058 – Parameter list length error.
E059 – Synchronous data transfer error.
E060 – Invalid command operation code.
E061 – Logical block address out of range.
E062 – Invalid element address.
E063 – Invalid field in CDB.
E064 – Logical unit not supported.
E065 – Invalid field in parameter list.
E066 – Parameter not supported.
E067 – Parameter value invalid.
E068 – Threshold parameters not supported.
E069 – Invalid release of active persistent reservation.
E070 – Write protected.
E071 – Hardware write protected.
E072 – Logical unit software write protected.
E073 – Associated write protect.
E074 – Persistent write protect.
E075 – Permanent write protect.
E076 – Not ready to ready change, medium might have changed.
E077 – Import or export element accessed.
E078 – power On, reset, or bus device reset occurred.
E079 – power On occurred.
E080 – SCSI bus reset occurred.
E081 – Bus device reset function occurred.
E082 – Device internal reset.
E083 – Parameters changed.
E084 – Mode parameters changed.
E085 – Log parameters changed.

E086 – Reservations preempted.
E087 – Copy cannot execute because Store Controller cannot disconnect.
E088 – Command sequence error.
E089 – Overwrite error on update in place.
E090 – Commands cleared by another initiator.
E091 – Incompatible medium installed.
E092 – Cannot read medium - unknown format.
E093 – Cannot read medium - incompatible format.
E094 – Cleaning cartridge installed.
E095 – Cannot write medium - unknown format.
E096 – Cannot write medium - incompatible format.
E097 – Cannot format medium - incompatible medium.
E098 – Cleaning failure.
E099 – Medium format corrupted.
E100 – Tape length error.
E101 – Enclosure failure.
E102 – Enclosure services failure.
E103 – Unsupported enclosure function.
E104 – Enclosure services unavailable.
E105 – Enclosure services transfer failure.
E106 – Enclosure services transfer refused.
E107 – Rounded parameter.
E108 – Saving parameters not supported.
E109 – Sequential positioning error.
E110 – Tape position error at beginning-of-medium.
E111 – Tape position error at end-of-medium.
E112 – Reposition error.
E113 – Position past beginning of medium.
E114 – Medium destination element full.
E115 – Medium source element empty.
E116 – Medium magazine not accessible.
E117 – Medium magazine locked.
E118 – Invalid bits in identify message.
E119 – Logical unit has not self-configured yet.
E120 – Target operating conditions have changed.
E121 – Microcode has been changed.
E122 – Changed operating definition.
E123 – Inquiry data has changed.
E124 – Diagnostic failure.
E125 – Message error.
E126 – Internal target failure.
E127 – Select or reselect failure.
E128 – Unsuccessful soft reset.
E129 – SCSI parity error.
E130 – Initiator detected error message received.
E131 – Invalid message error.
E132 – Command phase error.
E133 – Data phase error.
E134 – Logical unit failed self-configuration.
E135 – Tagged overlapped commands.
E136 – Overlapped commands attempted.
E137 – Write append error.
E138 – Write append position error.
E139 – Position error related to timing.
E140 – Erase failure.
E141 – Cartridge fault.
E142 – Media load or eject failed.
E143 – Unload tape failure.
E144 – Medium removal prevented.
E145 – Operator request or state change input.
E146 – Operator medium removal request.

E147 – Operator selected write protect.
E148 – Operator selected write permit.
E149 – Log exception.
E150 – Threshold condition met.
E151 – Log counter at maximum.
E152 – Log list codes exhausted.
E154 – Voltage fault.
E155 – Decompression exception short algorithm ID.
E156 – Decompression exception long algorithm ID.
E157 – Unexpected sense data.
E158 – A Device malfunction prevents return of the sense data.
E159 – Store Controller is not an ISA bus machine.
E160 – Illegal Length Indicator.
E161 – Illegal command.
E162 – Store Controller does not support ABIOS.
E163 – ABIOS has used all available logical IDs and cannot allocate a logical ID for the tape drive.
E164 – The tape drive has multiple LUNs. The tape software only supports tape drives with one LUN.
E165 – The ABIOS is using logical data pointers. Logical data pointers are not supported.
E166 – Device is not a Tape Streamer.
E167 – Device does not support removable media.
E168 – Tape Drive does not support Accelerated DRQ.
E169 – Packet size is not 12 bytes.
E170 – Device is not an ATAPI device.
E171 – Page code is incorrect.
E172 – Page length is incorrect.
E173 – Page support does not support the necessary pages.
E174 – No format and partition recognition.
E175 – No fixed data partitions.
E176 – Tape drive command timed out.

User response: Choose one of the following responses based on the event (E*xxx*) that is displayed:

E019, E020, E021, E036, E040, E041, E042, E043, E044, E045, E046, E047, E048, E049, E050, E051, E052, E053, E109, E110, E111, E112, E113, E137, E138, E140, E141, E149, E150, E151, E152 – These errors normally indicate a tape cartridge problem. Remove the cartridge and examine the tape. Look for any visible damage. Retension the tape and try again. If the problem persists, replace the tape cartridge. If the error still persists, contact your IBM Service representative.

E022, E023, E027, E076, E083, E084, E085, E119, E120, E121, E122, E123, E145, E146, E148 – These errors normally indicate a temporary condition that clears itself. Wait for the tape motion to stop before attempting the operation again.

E024 – Reboot the Store Controller.

E025 – Insert the tape cartridge in the tape drive.

E026 – This error normally indicates a user problem caused by attempting another command to the tape drive before a format completes. Wait for format to complete.

E028, E030, E031, E032, E033 – These errors normally indicate a tape drive hardware problem. Check connections to the tape drive. If the error still persists, contact your IBM Service representative.

E029 – Make sure there is only one tape drive installed.

E034, E091, E092, E093, E094, E095, E096, E097, E098, E099, E100, E166, E167, E168, E169, E170, E173, E174, E175 – These errors normally indicate an attempt to use a tape drive that is not supported. Make sure that the tape is a TR-4 tape for TR-4 tape drives or a TR-5 tape for TR-5 tape drives. If the problem persists, replace the tape cartridge. If the error still persists, contact your IBM Service representative.

E035, E054, E055, E056, E057, E124, E126, E127, E128, E129, E130, E134, E139, E142, E143, E158, E176 – These errors normally indicate a tape drive hardware problem. Contact your IBM Service representative.

E058, E059, E060, E061, E062, E063, E064, E065, E066, E067, E068, E069, E086, E087, E088, E089, E090, E107, E108, E114, E115, E118, E125, E131, E132, E133, E135, E136, E155, E156, E160, E161, E171, E172 – These errors normally indicate a tape drive software problem. Contact your IBM Software Support representative.

E070, E071, E072, E073, E074, E075, E116, E117, E144, E147 – These errors normally indicate a user problem caused by attempting to write to a tape that has been write protected. Remove write protection before retrying.

E077, E078, E079, E080, E081, E082, E154 – These errors normally indicate a temporary condition caused by a power line disturbance. It could also indicate a hardware problem. If there was a power line disturbance, retry to operation. If it is known that there was no power line disturbance, check connections. If the error still persists, contact your IBM Service representative.

E101, E102, E103, E104, E105, E106 – These errors normally indicate a tape drive enclosure hardware problem. Check connections to the enclosure. If the error still persists, contact your IBM Service representative.

E157 – This error indicates that an undocumented vendor-unique status was received.

E159, E162, E164 – These errors normally indicate an attempt to use a tape drive that is not supported or an attempt to use a supported tape drive on a Store Controller that does not support the specific model of tape drive. Check for compatibility between the tape drive model and the Store Controller model.

E163, E165 – These errors normally indicate a problem with the ABIOS. Check to see if you have the latest ABIOS patches and make sure your Store Controller is supported. Contact the IBM Support Center.

System action: Logged as B4/S056/E*xxx* by the Streaming Tape Drive Utility.

See the B4 information beginning on page 208.

W680 W680 STREAMING TAPE DRIVE IS TOO HOT B4/S055/E038

Severity: 4

Explanation: The tape drive detected that it is too hot.

User response: Check to see if the fan on the Store Controller is working and the vents are not blocked.

System action: Logged as B4/S055/E038 by the streaming tape drive device driver. See the B4 information beginning on page 208.

W681 W681 STREAMING TAPE DRIVE NEEDS CLEANING B4/S055/E018

Severity: 4

Explanation: The tape drive detected that it needs cleaning.

User response: Clean the drive using the proper cleaning kit.

System action: Logged as B4/S055/E018 by the streaming tape drive device driver.

See the B4 information beginning on page 208.

W682 W682 STREAMING TAPE DRIVE FAILURE PREDICTED B4/S055/E*xxx*

Severity: 4

Explanation: The attempted streaming tape drive operation was performed successfully, but the tape drive detected a potential problem.

The event (E*xxx*) in the message indicates the following:

E037 – Potential problem is unspecified.
E039 – The tape drive detected that the enclosure is degraded.
E153 – Failure prediction threshold exceeded.

System action: Logged as B4/S055/E*xxx* by the streaming tape drive device driver.

See the B4 information beginning on page 208.

W683 W683 THE JAVA PROGRAM WAS STARTED B5/S024/E032

Severity: 5

Explanation: The Java program has been loaded.

User response: None.

System action: Logged as B5/S024/E032. See the B5 information beginning on page 221.

W684 W684 THE JAVA PROGRAM HAS ENDED B5/S024/E033

Severity: 5

Explanation: The Java program has ended.

The event (E*xxx*) in the message indicates the following application condition:

E023 A Java Class Not Found exception occurred.

E033 – The Java program ended normally.

User response: Correct the cause of the Exception logged in the event number and reload your application.

System action: Logged as B5/S024/E023, E033. See the B5 information beginning on page 221.

W685 W685 SUREPOS SERIES TERMINAL ACTIVATION ERROR B5/S041/E225

Severity: 3

Explanation: An error was encountered activating a SurePOS 300/700 Series terminal configuration.

User response: Review the terminal activation messages for a more detailed description of the error. (These error messages are shown on the console display and are also contained in the file ADX_SPGM:JVACTERR.DAT.) Correct the SurePOS 300/700 Series terminal load definition or terminal device characteristics entries where indicated.

System action: Logged as B5/S041/E225. See the B5 information beginning on page 221.

W686 W686 JAVA2 INSTALLATION FAILURE B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The Java2 installation program, ADXJ2XPL.386, could not be loaded or it encountered an error.

User response: Review ADXJ2XPL.LOG for errors. If the LOG file contains the *Error opening read-only file* message, the file identified may be a distributed file instead of a LOCAL file. If so, change the distribution attribute of the file to 1, then reboot the controller.

If the problem persists, call the IBM Support Center for software assistance. Follow the problem data collection procedure.

System action: Logged as B5/S030/E101. See the B5 information beginning on page 221.

W687 W687 DIRECTORY CREATION FAILURE B5/S030/E001

Severity: 3

Explanation: An error occurred while trying to create a directory. The requested directory is listed in a file with a name like C:\ADX_?MNT\ADXC?T?X.DAT – the system message specifies the exact file. The requested directory name is either not valid (contains characters that are not valid or contains too many characters) or does not reside on the C: or D: drive.

User response: Look at the system message to determine which directory failed to be created. The message uses a 1–based index into the list of directories contained in the specified file. Modify the directory to a valid directory name on a valid drive.

System action: Logged as B5/S030/E001. See the B5 information beginning on page 221.

W688 W688 SYSTEM INFORMATION SERVER INIT ERROR

Severity: 3

Explanation: The system information server was unable to initialize successfully. This message is logged as B5/S252/E*xxx* where the event code (*xxx*) depends on the specific error that caused the problem.

User response: The system information server can be used at the request of IBM support to diagnose and fix certain types of customer problems. The server is only installed when TCP/IP is enabled and the errors are typically TCP/IP related. These are the possible event codes:

- **E001** – There is an error in the logical name used to configure the server. This name (ADXSITCF) will only be set at the request of IBM Support and should be set correctly. Ensure that you have set the name as directed.
- **E002** – Socket initialization failed even though TCP/IP was configured. This error could be due to a failure to install the TCP/IP driver for some reason.
- **E003** – Failure to create a socket. Report this error to IBM support.
- **E004** – Failure to bind the server socket to the appropriate port (finger/79). Report this error to IBM support.
- **E005** – The socket listen call failed. Report this error to IBM support.
- **E006** – Unable to create the system server process used to process client requests. Report this error to IBM support.
- **E007 - E017** – A communications transport layer function failed. Report this error to IBM support.
- **E018** – The system information server was stopped. This error is expected if you issued the command to stop the server as requested by IBM support, otherwise report the error to IBM support.
- **E019** – Error retries exhausted. Report this error to IBM support.
- **E020** – There is an error in the logical name used to configure the server. This name (ADXSITCF) will only be set at the request of IBM Support and should be set correctly. Ensure that you have set the name as directed.

W689 W689 TERMINAL PRELOAD SERVER (MTFTPDPL) FAILED

Severity: 2

Explanation: The mtftp preload server failed to initialize. Terminals which require files to be preloaded will not be able to preload those files, possibly resulting in terminals that do not function correctly. This message is logged as B5/S251/E*xxx* where the event code (*xxx*) depends on the specific error that caused the problem.

User response: This server is started automatically when TCP/IP is configured. All parameters are passed in automatically and the server is started early enough so that there should be no file conflicts. Additional error information is logged in the file adx_spgm:mtftpdpl.log. Collect this file and send it to IBM Support. These event codes are generated by this program:

- **E001** – No arguments were specified to the program and help was printed.
- **E002** – Unknown flag was passed to server.
- **E003** – Help was requested due to passed parameter.
- **E004** – No file specifications were given in the parameter list.
- **E005** – Error reading a file specification list input file.
- **E006** – Error occurred while starting the server.
- **E007** – Error occurred while stopping the server.
- **E008** – Invalid flag argument exists.
- **E009** – Invalid or unknown TCP/IP address was passed to an address flag.
- **E010** – Not enough file names were passed on a client transfer request.
- **E011** – Error determining the default multicast address for the controller.
- **E012** – Error initializing the sockets. Because the server is only started when TCP/IP is configured, this code probably indicates a problem with the TCP/IP driver.
- **E013** – Error occurred while opening the log file (adx_spgm:mtftpdpl.log).
- **E014** – Invalid log file modifier flag exists.
- **E015** – Error occurred while suspending server operation.
- **E016** – Error occurred while resuming server operation.
- **E255** – Internal error occurred; invalid internal event code.

W690 W690 PRELOAD REBUILD STARTED

Severity: 5

Explanation: The program used to rebuild the preload files has been started. This program is described in more detail in the *IBM 4690 OS: User's Guide*.

User response: Information only. Message W691 or W692 should follow this message.

W691 W691 PRELOAD REBUILD SUCCESSFUL

Severity: 5

Explanation: The program used to rebuild the preload files has completed successfully. This message does not necessarily indicate that any changes were made (the program normally only rebuilds files if a rebuild is needed). This program is described in more detail in the *IBM 4690 OS: User's Guide*.

User response: Information only.

W692 W692 PRELOAD REBUILD FAILED

Severity: 3

Explanation: The program used to rebuild the preload files has failed to complete successfully. This message is logged as B5/S250/E*xxx* where the event code (*xxx*) depends on the specific error that caused the problem. This program is described in more detail in the *IBM 4690 OS: User's Guide*.

User response: The rebuild program is normally started as a result of software maintenance being applied to the system, however it can also be started manually due to a user command. If the user started the program manually, ensure that any parameters are correct. If this fails to resolve the problem or if the program was started automatically, perform the steps in "Problem data collection procedure 6" on page 356. With the System Log information, also provide the contents of the file named ADX_SPGM:ADXPLD*.LOG, if the file exists. These event codes are generated by this program:

- **E001** – Internal error returned from the JVM used to rebuild the preload files.
- **E002** – Help was printed.
- **E003** – Invalid flag was specified to the program. If the program was started manually, ensure that all flag values are correct.
- **E004** – Invalid flag parameter value. If the program was started manually, ensure that all flag values are correct.
- **E005** – Unable to create JVM to rebuild the preload files.
- **E006** – The Java code responsible for rebuilding the preload files returned an error return code. This condition can be caused by the same types of errors that cause terminal configuration activation to fail. This event is described in more detail in the *IBM 4690 OS: User's Guide*.
- **E007** – Reserved. Used internally to indicate that the rebuild process succeeded, but no files were actually modified.
- **E008** – This error is logged on a multiple controller system when the rebuild program is not run on the acting master controller. The program should only ever be run on the acting master controller.
- **E009** – The Java code responsible for rebuilding the preload files returned an error return code. This is similar to event E006, except that the error could be related to a failure to pause the mtftp server.
- **E010** – The rebuild of the preload file was successful, however there was a failure resuming operation of the mtftp server after the rebuild was complete. This could cause the terminals to fail to load the updated files. This failure should only happen if the mtftp server fails; see message W689.
- **E011** – The rebuild of the preload file was successful. The terminals could not be reloaded as requested by the "-reload" flag.
- **E012** – The rebuild of the preload file was successful. However, there was a failure rebuilding the loadshrink file as requested by the "-loadshrink" flag.
- **E013** – Terminal preload rebuild program already running.
- **E014** – Unable to list active controllers.
- **E015** – Internal pipe failure.
- **E255** – Internal error occurred; invalid internal event code.

W723 W723 APPLICATION xxxxxxxxxxxxxx STARTED RC=xxxxxxxx

START COUNT=#

Severity: 5

Explanation: The given terminal application started. This message is logged as B5/S252/Exxx where the event code (xxx) indicates additional details about the event.

User response: The following events (Exxx) are currently used when logging this message. The return code value (RC=xxxxxxxx) is a hexadecimal value that is used to provide additional detail.

E000 The process loaded normally. The return code indicates the number of times the process has been started during the current boot of 4690.

001 The application was started, but program output was not redirected to the requested output file. The return code indicates the reason for the failure. See the "Return Codes" section for more information.

W724 W724 APPLICATION xxxxxxxxxxxxx ENDED RC=xxxxxxxx

Severity: 3 (unless otherwise indicated below)

Explanation: The given terminal application started. This message is logged as B5/S252/Exxx where the event code (xxx) depends on the specific error that caused the problem.

User response: The following events (Exxx) in the message indicate failures from which the user can recover.

E000 A process could not be created for the program. The return code indicates the reason for the load failure.

E001 The application ended. The return code is logged as part of the message. This should be examined to determine whether or not the failure was expected. Negative return codes are logged as severity 3; all others are logged as severity 4. Most negative error codes indicate there was a failure launching Firefox may be found in “Application program status xxx*” on page 9 of the Messages Guide. Negative return codes of the form 0x800000XX indicate that the program exited to a linux signal (where XX is the signal number). Positive error codes are returned either by the browser or the program used to validate parameters prior to launching the browser. The following return values are returned from the launcher.

- 0 - Operation complete. This return code is used for successful operations that does not otherwise start Firefox (such as deleting, listing, or extracting profiles and printing help).
- 50 - Graphics is not configured or available in this context. This error code will be returned if 4690 graphics mode is not configured or if the program is launched from a context where graphics cannot normally be used (such as from an enhanced telnet command session, a 4690 background task, or the IPL command processor).
- 51 - Firefox running. Returned when a profile is in use and it cannot be deleted, extracted or used by a new Firefox instance.
- 52 - Invalid zip. Returned when a ZIP file to be imported is invalid.
- 53 - Profile not found. Returned when a profile named on the delete or extract profile commands cannot be found.
- 54 - Missing argument. Returned when a required parameter (such as the profile name expected with the -profile flag) is missing.
- 55 - Invalid argument. Returned when a flag or argument is invalid.
- 56 - Unknown error. Returned when an unknown or internal failure condition is encountered.

E004 The maximum number of processes allowed to be launched via XML are already running.

The following failures are internal program failures. Follow the data collection procedure for message W065 to collect data for submission to IBM Support.

E002 The server process responsible for application management ended unexpectedly.

E003 The server process responsible for application management could not be started.

E005 Internal launcher failure.

W728 W728 CONTROLLER PRELOAD FAILED

Severity: 5

Explanation: Controller preload processing has completed successfully. All preloaded bundles, extensions, and applications have been processed.

User response: None. This message is displayed only briefly.

W729 W729 CONTROLLER PRELOAD FAILED

Severity: 2

Explanation: Controller preload failed. This message is logged as B5/S251/E*xxx* where the event code (*xxx*) depends on the specific error that caused the problem.

User response: See the user response for message W065.

W738 W738 RF CONTROLLER CONNECTION PROBLEM B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: A problem was detected with the connection between two radio frequency (RF) controllers that are configured as primary and backup. This message is logged when a controller cannot communicate with the partner controller.

Possible causes for this message are:
- The RF controller might be powered Off.
- The network cable connecting controllers might be disconnected or damaged.
- Radio interference might cause the connection between the RF controllers to be lost in controllers not connected by network cable. If these controllers are communicating through an RF repeater device, then the repeater might be powered Off or failing.
- The RF adapter card in the controller might be failing.
- The primary RF store controller might be failing.
- The backup RF store controller might be failing.

User response: Make sure both controllers are powered On. If the controllers are connected on a network cable, make sure that the cable is intact and plugged into the RF cards on both controllers. If the controllers are communicating through an RF repeater device, make sure that the repeater is powered On. Consult the service documentation for the RF adapter card for additional problem determination.

System action: Logged as B1/S255/E014. See the B1 information beginning on page 198.

W739 W739 RF BACKUP EXIT REQUESTED B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: A resume request has been received from the primary radio frequency (RF) controller. This enables the primary RF store controller to resume control of the RF terminals. The backup RF store controller must honor this request. This message is displayed at the backup RF store controller.

The primary RF store controller is the controller that has been designated to control the RF terminals. It is supported by the backup RF store controller.

User response: None. This is an informational message.

System action: Logged as B5/S255/E012. See the B5 information beginning on page 221.

W740 W740 RF CONNECTION TO *xxxxxxxxxxxxxxxxx* LOST B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The radio frequency device (RF) specified in this W740 message has stopped responding to messages sent to it by this controller.

Possible causes for this message:
- The RF device might be powered Off.
- Radio interference might cause the connection between the RF device and the controller to be lost.
- The RF device might be failing.
- The RF device with the same radio address as another RF device is attempting to connect to the controller.
- The primary RF store controller might be failing
- The backup RF store controller might be failing

User response: Continue problem determination using the hardware service documentation for your RF device. Make sure that all RF devices are configured with unique radio addresses.

System action: Logged as B4/S255/E001. See the B4 information beginning on page 208.

W741 W741 RF CONNECTION TO *xxxxxxxxxxxxxxxxxx* ESTABLISHED B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The radio frequency device (RF) specified in this W741 message has connected to this controller.

User response: None. This is an informational message.

System action: Logged as B4/S255/E002. See the B4 information beginning on page 208.

W742 W742 OPEN RF LOOP ON *xxxxxxxxxxxxxxxxxx* B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The radio frequency device (RF) connected to the store loop is sending but not receiving store loop communications. The name of the device is displayed in the W742 message.

Possible causes for this message:
- The store loop connected to the RF device is open down-loop from the last active point-of-sale terminal.
- An inactive terminal down-loop from the last active terminal is failing.
- The last active terminal base unit is failing
- The store loop cable connected to the RF device is failing.
- The distance between the last active terminal and the RF device controlling the loop exceeds 1220 m (4000 feet).

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and RF device.

System action: Logged as B4/S255/E003. See the B4 information beginning on page 208.

W743 W743 OPEN RF LOOP ON *xxxxxxxxxxxxxxxxxx* TERM *xxx* IS BEACONING B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The radio frequency device (RF) controlling the store loop is sending loop communications but it is receiving beacons from the point-of-sale terminal specified in this W743 message.

Possible causes for this message:
- The store loop attached to the RF device is open up-loop from the beaconing terminal.
- The store loop cable connected to the RF device is failing.
- Another terminal is failing.
- The RF device controlling the loop if failing.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal and RF device.

System action: Logged as B4/S255/E003.

See the B4 information beginning on page 208.

W744 W744 BACKUP RF LOOP IN CONTROL B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The radio frequency (RF) controller has taken control of the RF devices. This message is displayed at the backup store controller.

Possible causes for this message:
- The primary RF store controller has been powered Off or has IPLed.
- Radio interference might cause the connection between the RF controller and the RF devices to be lost.
- The network cable connecting controllers might be disconnected or damaged.
- Radio interference might cause the connection between the RF controllers to be lost in controllers not connected by network cable. If these controllers are communicating through an RF repeater device, then the repeater might be powered Off or failing.
- The RF adapter card in the primary controller might be failing.
- The primary RF store controller might be failing.

User response: If the primary RF controller has not failed and the controllers are connected by a network cable, make sure that the cable is intact and plugged into the RF adapters on the store controllers. If the RF controllers are communicating through an RF repeater device, make sure that the repeater is powered On and not failing.

Continue problem determination using the hardware service documentation for your point-of-sale terminal and RF device.

System action: Logged as B4/S255/E005.

See the B4 information beginning on page 208.

W745 W745 RF CONFIGURATION ERROR : *xxxxxxxxxxxxxxxxxx* **B***x***/S***xxx***/E***xxx***

Severity: 2

Explanation: An error in the configuration for the radio frequency (RF) store controller has been detected. Unique data associated with the error is specified in this W745 message

User response: Consult the installation and setup documentation for your RF device.

System action: Logged as B5/S255/E006.

See the B4 information beginning on page 221.

W746 W746 PRIMARY WAITING TO RESUME CONTROL OF RF LOOP B*x***/S***xxx***/E***xxx***

Severity: 2

Explanation: The BACK-UP radio frequency (RF) controller is controlling the RF terminals. The primary RF controller is available to assume control of the terminals from the backup RF controller.

User response: enable the primary controller to take control of the RF terminals by doing the following steps:
1. Press **System Request**.
2. Type **C** to display the STORE CONTROLLER FUNCTIONS panel.
3. Type **3**.
4. Press **Enter**. The LOOP FUNCTIONS panel is displayed.
5. Type **3**.
6. Press **Enter**. Store loop control is resumed.

Programmer response: The primary RF controller can be configured to automatically resume control of the RF terminals using the RF configuration application. Consult the installation and setup documentation for your RF device.

System action: Logged as B4/S255/E007.

See the B4 information beginning on page 208.

W747 W747 PRIMARY ASSUMING CONTROL OF RF LOOP B*x***/S***xxx***/E***xxx***

Severity: 2

Explanation: The primary radio frequency (RF) controller is taking control of the RF terminals from the backup RF controller.

Programmer response: The primary RF controller can be configured to do the following:

- Automatically resume control of the RF terminal

  -or-

- Resume control of the RF terminals when the RESUME STORE LOOP CONTROL option on the LOOP FUNCTIONS panel is used.

The RF configuration application enables you to set this feature. Consult the installation and setup documentation for your RF device.

System action: Logged as B4/S255/E008.

See the B4 information beginning on page 208.

W748 **W748 RF LOOP** *xxxxxxxxxxxxxxxxxx* **IS OPERATIONAL B***x***/S***xxx***/E***xxx*

Severity: 2

Explanation: A radio frequency (RF) controller has taken control of an RF device connected to a store loop. This message is displayed at the RF controller that has connected with the RF devices.

User response: None. This is an informational message.

System action: Logged as B4/S255/E011.

See the B4 information beginning on page 208.

W749 **W749 RF BACKUP REQUESTED - DISABLED B***x***/S***xxx***/E***xxx*

Severity: 2

Explanation: A terminal attached to a radio frequency (RF) device has requested backup, but the backup function was not enabled at the backup RF store controller. This message is displayed at the backup store controller.

Possible causes for this message:
- The primary RF store controller has been powered Off or has IPLed.
- Radio interference might cause the connection between the RF controller and the RF devices to be lost.
- The network cable connecting controllers might be disconnected or damaged.
- Radio interference might cause the connection between the RF controllers to be lost in controllers not connected by network cable. If these controllers are communicating through an RF repeater device, then the repeater might be powered Off or failing.
- The RF adapter card in the primary controller might be failing.
- The primary RF store controller might be failing.

User response: Enable the backup function at the backup store controller console from the TCC functions selection of the STORE CONTROLLER FUNCTIONS panel.

System action: Logged as B4/S255/E013.

See the B4 information beginning on page 208.

W750 **W750 PROBLEM UPDATING KEYED FILE** *xxxxxxxxxxxx* **B***x***/S***xxx***/E***xxx* **DRIVE=***x*

Severity: 1

Explanation: File services could not write a keyed file record that involved chaining. This file is no longer valid.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Determine if the disk(ette) is full, by attempting to create another file on the same disk(ette).

Message W766 appears, when the disk(ette) is full.

If the disk(ette) is full:

1. Remove any old, unused files from the disk(ette).
2. Run the Check Disk utility to see how much space is unused on the disk(ette).
3. Attempt to recover the unused space.

   Note: A new diskette can be used if you are working with a diskette and the operation involves creating a new file instead of modifying an existing file.
4. Rebuild the keyed file on the disk(ette). The Keyed File Utility can be used to create a direct file from the keyed file, and then to create a new keyed file from this intermediate direct file.

If the disk(ette) is *not* full:

Continue problem determination using the service documentation for your store controller.

System action: Logged as B4/S004/E014 by File Services with unique data. See the B4 information beginning on page 208.

W751 **W751 DISKETTE DRIVE *x* OPENED DURING READ/WRITE OPERATION B*x*/S*xxx*/E*xxx***

Severity: 2

Explanation: The diskette was removed while files on it were in use.

User response: Retry the procedure. Wait for the diskette light to go off before removing the diskette. Do not remove the diskette while the files on the diskette are in use.

System action: Logged as B4/S004/E007 by File Services with unique data. See the B4 information beginning on page 208.

W752 **W752 SUCCESSFUL RECOVERY FROM FIXED DISK ERROR B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx***

Severity: 4

Explanation: A file error occurred while reading from or writing to a file on the hard disk drive. This message could be logged from file system code or from driver code. If the message is from the file system, the file name is part of the message. If the message is from the driver, the adapter command is part of the message.

User response: None – Retries by the operating system were successful.

System action: Logged as B4/S004/E019 by File Services with unique data. See the B4 information beginning on page 208.

W753 **W753 HARDWARE PROBLEM WITH DISKETTE ADAPTER OR DRIVE *x* B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx***

Severity: 1

Explanation: A file error occurred while reading from or writing to a diskette, or a diskette drive or adapter failure occurred.

If streaming tape drive operations are currently in process, this prevents the use of the diskette drive. Diskette drive operations and streaming tape drive operations cannot be performed at the same time.

User response: If streaming tape drive operations are *not* currently in process, retry the diskette drive procedure.
1. Verify that the diskette is compatible with the diskette drive.
2. If the diskette is compatible, use a backup diskette.
   If the problem persists, continue problem determination using the service documentation for your point-of-sale terminal or store controller.

System action: Logged as B1/S004/E022 or B4/S004/E020 by File Services with unique data. See the B1 information beginning on page 198 or the B4 information beginning on page 208.

W754 **W754 HARDWARE PROBLEM WITH FIXED DISK ADAPTER OR DRIVE B*x*/S*xxx*/E*xxx* DRIVE=*x* RC=*xxxxxxxx***

Severity: 1

Explanation: A hardware error occurred when reading from or writing to the hard disk drive. Retries were not successful.

E018 indicates the name of the file being written to or read from when the hardware error occurred.

User response: Report the name of the file being written to or read from to your system programmer.

To fix the hardware error, continue problem determination using the service documentation for your point-of-sale terminal or store controller.

System action: Logged as B1/S004/E021 or B4/S004/E018 by File Services with unique data. See the B1 information beginning on page 198 or the B4 information beginning on page 208

Logged as B1/S004/E029 or B2/S004/E029 by File Services to report S.M.A.R.T. utility data. See the B1 information beginning on page 198.

Logged as B1/S004/E030 by File Services to report S.M.A.R.T. utility data created in test mode. See the B1 information beginning on page 198.

W755 W755 RECOVERY AFTER POWER FAILURE CANNOT BE STARTED B*x*/S*xxx*/E*xxx*

Severity: 1

Explanation: File operations that were in progress when a power failure occurred cannot be restarted.

The event (E*xxx*) in the message indicates the following:

E023 – File services could not get enough storage to attempt power line disturbance (PLD) recovery.

E024 or E025 – Permanent storage was not valid or was missing at IPL time.

E026 – File Services flags are not valid. Permanent storage can still be valid, but PLD recovery cannot be attempted.

User response: Choose one of the following based on the event (E*xxx*) that is displayed:

E023 – Follow "Problem data collection procedure 1" on page 355.

E024, E025, or E026 – Continue problem determination using the service documentation for your store controller

Programmer response: For **E023** – Reconfigure the system so that more storage is available.

System action: Logged as B4/S004/E023, E024, E025, or E026 by File Services. See the B4 information beginning on page 208.

W756 W756 RECOVERY AFTER POWER FAILURE CANNOT COMPLETE B*x*/S*xxx*/E*xxx*

Severity: 1

Explanation: File operations that were in progress when a power failure occurred were retried. The new attempt did not succeed.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Examine the file DDACMOS.CKP on the root directory that contains the permanent storage data and the return codes to see which operations were being performed.

Verify that the files involved are up-to-date and still intact. If a file is damaged, restore it from backup.

- File ADXFSF4F.DAT has a record length of 0 (no length checking).
- The first 4096 bytes are a direct dump of permanent storage.
- The next 40 bytes are a dump of the status of each of the following functions:
  1. Diskette sector rewrite
  2. Hard disk drive sector rewrite
  3. Diskette 0 FAT rewrite
  4. Diskette 1 FAT rewrite
  5. Hard disk drive 0 FAT rewrite
  6. Hard disk drive 1 FAT rewrite
  7. Diskette record rewrite
  8. Hard disk drive 0 record rewrite
  9. Hard disk drive 1 record rewrite
  10. Write hold rewrite
- Each is a 4-byte return code from the operating system.

System action: Logged as B4/S004/E027 by File Services with unique data. See the B4 information beginning on page 208.

W757 W757 RAM DISK NOT INSTALLED DUE TO INSUFFICIENT STORAGE

Severity: 2

Explanation: The store controller RAM disk configuration called for more storage than the amount available.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Configure the store controller with a smaller RAM disk. Do not use RAM disk files until the configuration has been set to specify a smaller RAM disk size.

System action: Logged as B5/S047/E001. See the B5 information beginning on page 221.

W758 W758 ERROR FOUND IN KEYED FILE

Severity: 1

Explanation: The application is reading bad data from a keyed file or writing bad data into a keyed file.

User response:

For a *read* operation:

1. Stop the application.
2. Follow "Problem data collection procedure 7" on page 357.

For a *write* operation:

1. Stop the application.
2. Try the operation again.
3. If the problem happens again, follow "Problem data collection procedure 1" on page 355.

Programmer response:

For a *read* operation:

1. Review the Problem Data Collection Form and the System Log.
2. Call the IBM Support Center for software assistance.

For a *write* operation:

1. Review the Problem Data Collection Form.
2. Check the application program.

System action: Logged as B5/S004/E014. See the B5 information beginning on page 221.

W759 W759 RECORD LOCKED FOR AN EXTENDED PERIOD OF TIME B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* TERM=*xxx* OFF=*xxxxxxxx*

Severity: 2

Explanation: If a record in a file has been locked for an extended period of time, the file system logs this message as a reminder to the user. A message is only be logged once, regardless of how long it remains locked.

Possible causes for this message:

- An application has locked a record (with a LOCK request or with a READ AUTOLOCK request) and it has not issued a paired UNLOCK.
- The user is working with the Display/Alter program (which locks records) and has not quit the program.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Find the application that is locking the record. The terminal number is shown in the message. (**Note:** A terminal number of zero means the record was locked by a controller application rather than a terminal application.) If possible, unlock the record.

If the record cannot be unlocked, follow the procedure for "Requesting a terminal storage dump" on page 361 or "Requesting a store controller storage dump" on page 359 and use this information to find the cause of the problem.

Note: To clear the condition without analyzing the cause, IPL the store controller logging the message.

System action: Logged as B5/S004/E028. See the B5 information beginning on page 221.

W760 W760 OPEN LOOP - TERMINAL *xxx* IS BEACONING B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The store controller is sending store loop communications but it is receiving beacons from the point-of-sale terminal specified in this W760 message.

Possible causes for this message:

- The store loop is open up-loop from the beaconing terminal.
- Another terminal is failing.
- The store loop cable is failing.
- The terminal base unit is failing.
- The *primary* store controller is failing.
- The *backup* store controller is failing.

User response: Continue operating the terminal in offline mode.
Continue problem determination using the hardware service documentation for your point-of-sale terminal.

System action: Logged as:
B4/S008/E036 with unique data, for the First Store Loop Adapter.
B4/S009/E036 with unique data, for the Second Store Loop Adapter.

See the B4 information beginning on page 208.

W761 W761 LOOP IS OPERATIONAL B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: An open store loop condition has been resolved. The open condition was reported by message W760 or message W764.

System action: Logged as:
B5/S008/E039 for the First Store Loop Adapter
B5/S009/E039 for the Second Store Loop Adapter

See the B5 information beginning on page 221.

W762 W762 TERMINAL *xxx* DOES NOT RESPOND B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The terminal specified in this W762 message does not respond to messages sent to it by the store controller.

Possible causes for this message:
- The terminal (number *xxx*) might be powered Off.
- The terminal (number *xxx*) might be offline.
- The terminal (number *xxx*) is failing.
- The primary store controller is failing.
- The backup store controller is failing.
- The distance between powered-on terminals on the store loop exceeds 1220 m (4000 feet).

User response: Continue problem determination using “MAP 0120: W762 Message” on page 513.

System action: Logged as:
B4/S008/E035 with unique data, for the First Store Loop Adapter.
B4/S009/E035 with unique data, for the Second Store Loop Adapter.

See the B4 information beginning on page 208.

W763 W763 CONTROLLER OFF LOOP - STORE LOOP ADAPTER PROBLEM B*x*/S*xxx*/E*xxx*

Severity: 1

Explanation: The store controller Store Loop Adapter self-test detected a problem or the store controller Store Loop Adapter failed to respond to a store loop command.
This message is posted for intermittent and permanent problems. If the problem is intermittent, the store controller automatically recovers.

User response: Continue problem determination using the hardware service documentation for your Store Loop Adapter.

System action: Logged as:
B1/S008/E024 for the First Store Loop Adapter.
B1/S009/E024 for the Second Store Loop Adapter.

See the B1 information beginning on page 198.

W764 **W764 OPEN LOOP AFTER LAST ACTIVE TERMINAL B*x*/S*xxx*/E*xxx***

Severity: 2

Explanation: The store controller is sending but it is not receiving store loop communications.

Possible causes for this message:
- The store loop is open *down-loop* from the last active point-of-sale terminal.
- An inactive terminal down-loop from the last active terminal is failing.
- The last active terminal store loop cable is failing.
- The last active terminal base unit is failing.
- The active store controller store loop cable is failing.
- The active store controller is failing.
- The distance between the last active terminal and the active store controller on the store loop exceeds 1220m (4000 feet).

User response: Continue problem determination using “MAP 0130: W764 Message” on page 518.

System action: Logged as:
B4/S008/E033 for the First Store Loop Adapter.
B4/S009/E033 for the Second Store Loop Adapter.

See the B4 information beginning on page 208.

W765 **W765 FILE ALLOCATION TABLE PROBLEM HAS BEEN DETECTED B*x*/S*xxx*/E*xxx* DRIVE=*x* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx***

Severity: 2

Explanation: The File Allocation Table for the disk(ette) has had a problem. This can result in losing the ability to access portions of a file (or all files if the entire table is bad).

User response: Repeat the steps that caused the problem.
If the problem persists, follow “Problem data collection procedure 1” on page 355.

Programmer response: Use the Display/Alter utility to examine the File Allocation Table for the disk(ette) in question and fix it based on the return code. Refer to *IBM 4690 OS: User's Guide*.

System action: Logged as B4/S004/E009 or E010 by File Services with unique data. See the B4 information beginning on page 208.

W766 **W766 DISK(ETTE) OR DIRECTORY IS FULL B*x*/S*xxx*/E*xxx* DRIVE=*x* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx***

Severity: 3

Explanation: There is no disk(ette) space available or there are no root directory entries available. Files must be removed or the Check Disk utility must be run to free up some space on the disk(ette).

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:
1. Remove any old, unused files from the disk(ette).
2. Run the Check Disk utility to see how much space is unused on the disk(ette).
3. Attempt to recover the unused space.

Notes:

a. A new diskette can be used if you are working with a diskette and the operation involves creating a new file instead of modifying an existing file.

b. If an error occurs on a RAM disk, the Check Disk utility cannot be run.

System action: Logged as B5/S004/E008 by File Services with unique data, or as B5/S125/E008 by Terminal RAM Disk File Services with unique data. See the B5 information beginning on page 221.

W767 **W767 RECORD NOT ADDED, KEYED FILE IS FULL B*x*/S*xxx*/E*xxx* DRIVE=*x* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx***

Severity: 3

Explanation: An update of a keyed file is not possible because the keyed file is full. A full keyed file is one in which there is no free space to put a new record.

User response: If the file name associated with this message is a configuration data file, the return code is 80F306CE and the system configuration utility is being run. No response is necessary because the configuration utility processes the return code, performs the necessary file expansion, and rewrites the record. Otherwise, follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. Use the Keyed File Utility to examine the performance statistics for the keyed file before creating a new, larger version. This gives information that helps you to determine how much the file should be expanded.
2. Use the Keyed File Utility to expand the keyed file.
   - The utility first takes the records out of the keyed file and store them in an intermediate direct file.
   - This direct file is then used to create a new keyed file.
   - When creating this new keyed file, the user can specify a new size (larger) and the new file is created.

System action: Logged as B4/S004/E012 by File Services with unique data. See the B4 information beginning on page 208.

W768 **W768 CHAINING THRESHOLD EXCEEDED B*x*/S*xxx*/E*xxx* DRIVE=*x* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx***

Severity: 4

Explanation: When a keyed file is created, a chaining threshold is specified. When a keyed file is accessed for either a read or a write, it might have to go along a *chain* of sectors to find the proper record. This chain gets longer if the file is poorly randomized or is filling up. This message means that a chain was reached that was as long as, or longer, than the chaining threshold.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: No immediate response is required. The fact that the chain is getting longer implies that the time needed to access the file is getting longer as well.

If a response is required, use the Keyed File Utility to examine the performance statistics for the keyed file in question. These shows how many chains are in the file and how long they are.

- If there are just a few chains and some of these are very long, there is bad randomization of the file. Use the Keyed File Utility to rebuild the keyed file with a different randomizer.
- If there are several long chains and the file is getting full, the file might need to be made larger. Use the Keyed File Utility to rebuild the file.

System action: Logged as B4/S004/E011 by File Services with unique data. See the B4 information beginning on page 208.

W769 **W769 INSUFFICIENT STORAGE FOR FILE OPERATION B*x*/S*xxx*/E*xxx* DRIVE=*x* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx***

Severity: 1

Explanation: File services has requested storage and a block large enough for the request was not found.

User response: Follow “Problem resolution procedure” on page 358.

Programmer response: The system can be reconfigured to make more storage available.

System action: Logged as B1/S004/E017 by File Services with unique data. See the B1 information beginning on page 198.

W770 W770 BACKUP LOOP IN CONTROL

Severity: 2

Explanation: The *backup* store controller has taken control of the store loop. This message is displayed at the *backup* store controller.

User response: Continue problem determination using the hardware service documentation for the loop adapter in your primary controller.

System action: Logged as:
B5/S008/E037 for the First Store Loop Adapter.
B5/S009/E037 for the Second Store Loop Adapter.

See the B5 information beginning on page 221.

W771 W771 BACKUP REQUESTED - DISABLED

Severity: 2

Explanation: A terminal has requested backup, but the backup function was not enabled at the *backup* store controller. This message is displayed at the *backup* store controller.

User response: Enable the backup function at the *backup* store controller console:

1. Press **SysRq**.
2. When the SYSTEM FUNCTIONS panel appears, press **C** to display the STORE CONTROLLER FUNCTIONS panel.
3. Press **3**, then press **Enter** to display the TCC FUNCTIONS panel.
4. Press **1**, and type the TCC Network to be allowed as backup.
5. Press **Enter** to enable (allow) store controller backup.
   Continue problem determination using the hardware service documentation for the loop adapter in your primary controller.

System action: Logged as:
B5/S008/E038 for the First Store Loop Adapter
B5/S009/E038 for the Second Store Loop Adapter
B5/S018/E011 for the token-ring or Ethernet Adapter

See the B5 information beginning on page 221.

W772 W772 OPEN LOOP - BEACONING

Severity: 2

Explanation: The *backup* store controller is not receiving store loop communications. This *backup* store controller is sending beacons but it is not receiving store loop beacons. This message is displayed at the *backup* store controller.

Possible causes for this message:
- The store loop is open *up-loop*.
- A point-of-sale terminal *up-loop* is failing.
- The backup store controller is failing.
- The primary store controller is failing.
- The distance between powered-on terminals on the store loop exceeds 1220m (4000 feet).

User response: Continue problem determination using “MAP 0140: W772 Message” on page 526.

System action: Logged as:
B4/S008/E040 for the First Store Loop Adapter.
B4/S009/E040 for the Second Store Loop Adapter.

See the B4 information beginning on page 208.

W773 W773 BACKUP EXIT REQUESTED

Severity: 2

Explanation: A resume request has been received from the *primary* store controller. This enables the *primary* store controller to resume control of the store loop. The *backup* store controller must honor this request. This message is displayed at the *backup* store controller.

The *primary* store controller is the controller that has been designated to control the store loop. It is supported by the *backup* store controller.

System action: Logged as:
B5/S008/E041 for the First Store Loop Adapter.
B5/S009/E041 for the Second Store Loop Adapter.

See the B5 information beginning on page 221.

W774 W774 CONTROLLER OFF LOOP

Severity: 2

Explanation: The *backup* store controller, acting as a terminal, is not receiving store loop communications. The Store Loop Adapter self-test was automatically run and it detected no problems in the *backup* store controller. The *backup* store controller beaconed and received its own beacon in response. It is now signaling (message W774) that the *primary* store controller is not communicating on the loop. The store loop appears to be OK.

Possible causes for this message:
- The backup store controller is disconnected from the store loop.
- The backup store controller is failing.
- The primary store controller is powered Off.
- The primary store controller is disconnected from the store loop.
- The primary store controller is failing.

User response: Continue problem determination using the hardware service documentation for your point-of-sale terminal.

System action: Logged as:
B4/S008/E042 for the First Store Loop Adapter
B4/S009/E042 for the Second Store Loop Adapter

See the B4 information beginning on page 208.

W775 W775 KEYED FILE PLD RECOVERY IS DISABLED DUE TO ERROR B*x*/S*xxx*/E*xxx* DRIVE=*x* RC=*xxxxxxxx*

Severity: 3

Explanation: A disk error occurred during the Power Line Disturbance (PLD) recovery function that protects keyed files when several disk writes are required to manipulate chain pointers. The PLD protection for chain manipulation is now disabled. It is re-enabled when the system is IPLed. The single sector PLD protection is still enabled. If another error does not interrupt, the update to the keyed file is completed.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Base your actions on the return code in the message.
If the problem persists, reformat the hard disk drive or replace the hard disk drive.

System action: Logged as B4/S004/E018 by File Services. See the B4 information beginning on page 208.

W776 W776 CIRCULAR CHAIN FOUND IN KEYED FILE B*x*/S*xxx*/E*xxx* DRIVE=*x* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx*

Severity: 2

Explanation: A circular chain was found during a keyed record chain operation. That is, when searching through a file, chain pointer *one* points to chain pointer *two* and chain pointer *two* points to chain pointer *one*. Any operation that uses chaining to locate a keyed record could get caught in a loop of this type if the file is damaged.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Repeat the operation that caused this error. If the operation continues to fail, restore or rebuild the keyed file.

System action: Logged as B4/S004/E015 by File Services with unique data. See the B4 information beginning on page 208.

W777 W777 RPL FILE I/O EVENT OCCURRED B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: A load file I/O error occurred. The error can be caused by an error in running Terminal Load Shrink (TLS). Reinitializing TLS clears the error.

User response: Call the IBM Support Center for software assistance.

System action: Logged as B5/S017/E101. See the B5 information beginning on page 221.

W778 W778 RPL EVENT OCCURRED B*x*/S*xxx*/E*xxx*

Severity:

Explanation: An RPL event occurred.

The event (E*xxx*) in the message indicates the following:

E102 – There was an unexpected communications control block (CCB) return code.
E103 – There was an unexpected DVRIF return code.
E104 – There was an error on the CREATE in the load process.
E105 – An internal buffer exhaustion occurred.
E106 – A program alert was received.
E107 – An unknown frame was received.
E108 – An adapter or PC error occurred.
E109 – A ring status change occurred due to an unexpected RPL load interruption.
E110 – There is a missing bootstrap control file.

User response:

E102, **E103**, **E104**, **E105**, **E108**, **E110** – Call the IBM Support Center for software assistance.
E106, **E107**, **E109** – Call the IBM Support Center for software assistance only if other problems accompany these messages.

System action: Logged as B4/S017/E102, E103, E104, E105, E106, E107, E108, or E109. See the B4 information beginning on page 208.

W779 W779 OEM CONTROLLER DRIVER EVENT HAS OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: An original equipment manufacturer (OEM) controller driver event has occurred.

The event (E*xxx*) in the message indicates the following:

E050 – An error occurred during the IPL of the store controller installing the OEM store controller driver. The return code is in bytes 9 through 12 of the unique data.
E051 – The OEM store controller driver was successfully installed.

User response: Take action based on the event logged.

System action: Logged as B5/S030/E050 or E051. See the B5 information beginning on page 221.

W780 W780 TEMPORARILY OUT OF MESSAGE BUFFERS B*x*/S*xxx*/E*xxx*

Severity: Variable

Explanation: There are no more message buffers available.

User response: Call the IBM Support Center for software assistance only if other problems accompany these messages.

System action: Logged as B4/Sxxx/E016 where S*xxx* can be:
S008 – Store Controller First Store Loop Adapter
S009 – Store Controller Second Store Loop Adapter

See the B4 information beginning on page 208.

W781 W781 CRC DATA ERRORS IN 1% OF MESSAGES RECEIVED B*x*/S*xxx*/E*xxx* LAST MESSAGE FROM TERMINAL *xxx*

Severity: Variable

Explanation: One percent of the messages received from this terminal contained cyclical redundancy check (CRC) data errors.

User response: This message indicates a hardware problem with the store loop. Correct the store loop problem.

System action: Logged as B4/Sxxx/E017 where S*xxx* can be:
S008 – Store Controller First Store Loop Adapter
S009 – Store Controller Second Store Loop Adapter

See the B4 information beginning on page 208.

W782 W782 STORE LOOP ADAPTER EVENT DETECTED B*x*/S*xxx*/E*xxx*

Severity: Variable

Explanation: An event was detected and reported by the store controller store loop adapter.

User response: None

System action: Logged as B4/Sxxx/E023 where S*xxx* can be:
S008 – Store Controller First Store Loop Adapter
S009 – Store Controller Second Store Loop Adapter

See the B4 information beginning on page 208.

W783 W783 STORE LOOP ADAPTER ERROR DETECTED B*x*/S*xxx*/E*xxx*

Severity: Variable

Explanation: An event was detected and reported by the store loop adapter processor.

User response: Call the IBM Support Center for software assistance only if other problems accompany these messages.

System action: Logged as B4/Sxxx/E024 with unique data, where S*xxx* can be:
S008 – Store Controller First Store Loop Adapter
S009 – Store Controller Second Store Loop Adapter

See the B4 information beginning on page 208.

W784 W784 SIOAM EVENT HAS OCCURRED B*x*/S*xxx*/E*xxx*

Severity: Variable

Explanation: A SIOAM event has occurred.
The event (E*xxx*) in the message indicates the following:
E001 – The file number/terminal address table algorithm did not allocate the required amount of storage at initialization.
E002 – The read only table algorithm did not allocate the required amount of storage at initialization.
E004 – The algorithm that allocates storage for tables, during Shared I/O Access Method initialization, did not allocate the required amount of storage.
E006 – An invalid TCC message was received. This could have been caused by an OS error at the terminal, faulty terminal hardware, or a problem in the network. It is unnecessary to take any action on this message unless it occurs frequently.
E020 – The terminal indicated by the address in the first two bytes of the unique data is reloading the terminal operating system. The load counter kept in controller storage is different from the load counter kept in

C:\ADX_SPGM\ADXRT1SL.286 on the hard disk drive. This situation was probably caused by copying ADXRT1SL.286 onto the hard disk drive of the controller. The terminal loading the operating system is now in a loop trying to load the terminal operating system. This continues until either of the following occurs:

- The controllers containing the new copy of ADXRT1SL.286 are re-IPLed, causing the counter in controller storage to be made equal to the counter in ADXRT1SL.286 on the hard disk drive.
- A load terminal storage command is performed on the master controller specifying a terminal address of "*". This causes all terminals to reload and make the load counter in controller storage equal to the counter in ADXRT1SL.286.

E032 – A terminal has failed to respond to a message that was sent by the store controller. The cause can be that the terminal is powered Off, disconnected from the TCC Network, or unable to communicate with the store controller.

User response: Take action based on the event logged.

System action: Logged as B4/S017/E001, E002, E004, E006, or E032 with unique data. See the B4 information beginning on page 208.

W785 W785 MATRIX WRITE DESPOOLING EVENT HAS OCCURRED B*x*/S*xxx*/E*xxx*

Severity: Variable

Explanation: A matrix write despooling event has occurred.

The event (E*xxx*) in the message indicates the following:

E010 – The Matrix Write Despooler cannot open a file that is about to receive a record. The open was tried 10 times at 2-minute intervals. This record was not despooled.
E011 – The Matrix Write Despooler has found unrecognizable data in the spool file when it tried to open a remote file for the despooling operation. The data has been ignored.
E012 – The Matrix Write Despooler cannot despool a record because the file to which the record is to be despooled does not exist.
E013 – The Matrix Write Despooler cannot be started because of a lack of system resources. This is a temporary condition. An attempt is made every two minutes to start the despooler. System resources become available by ending programs or by closing windows that might be open on this store controller. B4/S017/E014 is logged when system resources are available and the despooler is started.
E014 – The Matrix Write Despooler has been started after waiting for system resources to become available. B4/S017/E013 is logged prior to this message.
E021 – Despooler unable to create save file.
E022 – Despooler error occurred opening save file.
E023 – Despooler error attempting to scan spool file.
E024 – Despooler unable to obtain memory for save operation.
E025 – Despooler unable to read data from spool file.
E026 – Despooler unable to write save data to save file.
E027 – Despooler data successfully written.

User response: Take action based on the event logged.

System action: Logged as B4/S017/E010, E011, E012, E013, E014, E021, E022, E023, E024, E025, E026 or E027 with unique data. See the B4 information beginning on page 208.

W786 W786 TERMINAL xxx DUPLICATE APPLICATION TIMEOUT MESSAGE B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The terminal specified in the W786 message has sent an Application Timeout message to the controller, requesting that the controller dump and re-IPL. This terminal has previously sent one or more Application Timeout messages, so the current message is ignored. The controller must receive Application Timeout messages from two different terminals before it dumps. This message is logged up to 10 times. Any further Application Timeout messages from the terminal after that are not logged.

User response: Check the status of the controller and the terminal specified in the W786 message. If the controller appears to be in a stalled condition, follow the procedure for "Requesting a store controller storage dump" on page 359. If the terminal appears to be in a stalled condition, follow the procedure for "Requesting a terminal storage dump" on page 361. If neither the controller or terminal appear to be experiencing a problem, at the first opportunity, reload terminal storage on the terminal that is specified in the W786 message. This stops the terminal from sending duplicate Application Timeout messages.

System action: Logged as B5/S008/E043 for the First Store Loop Adapter or B5/S008/E043 for the Second Store Loop Adapter. See the B5 information beginning on page 221.

W787 W787 CRC DATA ERRORS IN 1% OF MESSAGES TRANSMITTED B*x*/S*xxx*/E*xxx* LAST MESSAGE TO TERMINAL *xxx*

Severity: Variable

Explanation: One percent of the messages transmitted to this terminal contained cyclical redundancy check (CRC) data errors.

User response: This message indicates a hardware problem with the store loop. Correct the store loop problem.

System action: Logged as B4/Sxxx/E018 where S*xxx* can be:
S008 – Store Controller First Store Loop Adapter
S009 – Store Controller Second Store Loop Adapter

See the B4 information beginning on page 208.

W790 W790 PRINTER SPOOLER ERROR HAS OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: A printer spooler error has occurred.
The event (E*xxx*) in the message indicates the following:
E001 – A duplicated printer ID was found at initialization.
E002 – Error writing data on queue to disk.
E003 – The maximum number of print jobs in system has been reached.
E004 – Print queue is full.
E005 – Error renaming a spooled file.
E006 – Error opening a queued file.
E007 – Hold queue is full.
E008 – Open error on spooler printer.
E009 – Print queue in crash recovery mode.
E010 – Print queue has been redirected.
E011 – Print queue has been resumed.
E012 – Print queue is being held.
E013 – Print queue has been unheld.
E014 – Printer was powered Off.
E015 – Printer ran out of paper.
E016 – A printer I/O error occurred.
E017 – A printer timeout occurred.
E018 – Unable to create spooler directory ADX_IOSS.
E019 – Job prefix file ADX_IOSS:PRNx.JCH is > 64K.
E020 – Memory not available for user job prefix file.
E021 – Error writing job prefix to spool file.
E022 – Memory not available for PPDS to PCL translation.
E101 – SLPR input file missing.
E102 – SLPR unknown service.
E103 – SLPR unknown server.
E104 – SLPR unknown host.
E105 – SLPR local client out of memory.
E106 – SLPR socket error.
E107 – SLPR bind error.
E108 – SLPR connect error.
E109 – SLPR send error.
E110 – SLPR local address error.
E111 – SLPR unexpected end-of-file found.
E112 – SLPR receive error.
E113 – SLPR connection was closed unexpectedly.
E114 – SLPR remote server cannot open or write to printer.
E115 – SLPR remote server out of memory.
E116 – SLPR unknown error occurred on remote server.

E117 – SLPR usage error.

User response: Take action based on the event logged.

System action: Logged as B5/S054/E001 to E022 or E101 to E117. See the B5 information beginning on page 221.

W791 W791 PC FAILURE DETECTED

Severity: 2

Explanation: The controller token-ring adapter has detected a failure in the PC adapter.

User response: If the error continues, replace the PC adapter in this controller.

System action: Logged as B5/S018/E005. The OFFLINE light is on at the terminal. See the B5 information beginning on page 221.

W792 W792 MAXIMUM NUMBER OF TERMINALS EXCEEDED B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: A terminal has attempted to establish communications with this controller through the token ring, but the maximum number of terminals are attached to this controller. The terminal receives a message indicating that the limit is exceeded and it is not allowed to communicate with the controller.

User response: If possible, power Off some unused terminals. Then, the terminal can be reloaded.

System action: Logged as B5/S018/E006. See the B5 information beginning on page 221.

W793 W793 TOKEN RING RESOURCES LIMIT TERMINAL SUPPORT B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The token-ring adapter in this controller is not allocated with enough resources to allow 128 Mod1 4693, 4694, or SurePOS Series terminals to be supported. A minimum system of two Mod1 terminals is supported.

User response: In order to support 128 Mod1 terminals, the system must be able to access 64 KB of shared RAM on the token-ring adapter. Review the TCC token-ring network configuration requirements discussed in the *IBM 4690 OS: Planning, Installation, and Configuration Guide*.

System action: A minimum system of two 4693, 4694, or SurePOS Series Mod1 terminals is supported.

W794 W794 INSUFFICIENT RESOURCES FOR TOKEN-RING TCC B*x*/S*xxx*/E*xxx*

Severity: 1

Explanation: There are not enough shared RAM resources on the token-ring card to allow token-ring terminal-to-controller communications. This might be caused by the wrong type of token-ring card in the controller, or the token-ring card is configured with too few resources. Terminal-to-store-controller communications will not be established.

User response: If this is the wrong type of token-ring card, replace the card with one supported for terminal-to-controller communications. If the token-ring card is one of the Terminal-Controller Communications (TCC) supported cards, ensure that it is configured as specified.

System action: Logged as B5/S018/E007. See the B5 information beginning on page 221.

W795 W795 LAN TERMINAL BACKUP INITIATED

Severity: 2

Explanation: The LAN controller logging this message has accepted a FIND XID from a terminal configured in its backup terminal list. This indicates that the configured primary controller for the terminal was not able to respond.

If some terminals are configured to communicate using legacy LAN TCC and some using TCC over IP, this message may be logged once for each protocol.

User response: If you know the reason why the primary controller could not respond, no response is required. Otherwise, check on the condition of the primary controller.

System action: Logged as B5/S018/E009. See the B5 information beginning on page 221.

W796 W796 LAN TERMINAL BACKUP ENDED

Severity: 2

Explanation: The LAN controller logging this message has discontinued backing up any terminal.

If some terminals are configured to communicate using legacy LAN TCC and some using TCC over IP, this message may be logged once for each protocol.

User response: None

System action: Logged as B5/S018/E010. See the B5 information beginning on page 221.

W797 W797 CONTROLLER RECOVERED FROM LOBE FAULT

Severity: 3

Explanation: The cable attached to the token-ring card has been plugged into the MAU.

User response: None

System action: Logged as B5/S018/E012. See the B5 information beginning on page 221.

W798 W798 KEYED FILE RECORD INSERTION PERFORMANCE Warning B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx* *SECS=xxxx HOME=xxxxxxxx*

Severity: 2

Explanation: It took a long time to insert a record to a keyed file. This could occur if the keyed file is getting full, or if the distribution of records is poor.

FN: name of the keyed file

SECS: number of sectors searched to find free space

HOME: home sector of the new record.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Recreate the keyed file by:
1. Following the procedure for Alternate Hashing Algorithms in the *IBM 4690 OS: Programming Guide*.
2. Using the size recommendation for keyed files in Creating a Keyed file in the *IBM 4690 OS: Programming Guide*.

System action: Logged as B4/S004/E013. See the B4 information beginning on page 208.

W800 W800 ASYNC HOST COMMUNICATIONS IS NOT OPERATIONAL B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: Communications are not operational.

The event (E*xxx*) in the message indicates the following:

E001 – Data Set Ready (DSR) signal not raised within a specified time limit, OPEN fails.

E002 – Clear to Send (CTS) signal not raised within a specified time limit, OPEN fails.

E003 – Receive Line Signal Detect (RLSD) not raised within a specified time limit; OPEN fails.

E009 – On a line configured as autodial with a modem that is not attention command set compatible, the DSR signal raised before Data Terminal Ready (DTR) or the CTS signal raised before Request to Send (RTS); OPEN fails.

User response: Continue problem determination using the hardware service documentation for store controller.

System action: Logged as B4/S010/E001, E002, E003, or E009 by Asynchronous Communications with unique data. See the B4 information beginning on page 208.

W801 W801 ASYNC AUTO-DIAL LINE DID NOT RESPOND B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The line did not respond (auto-dial timeout) within the specified time limit.

User response: Continue problem determination using the hardware service documentation for store controller.

System action: Logged as B4/S010/E004 by Asynchronous Communications. See the B4 information beginning on page 208.

W802 W802 ASYNC AUTO-ANSWER LINE DID NOT RESPOND B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The line did not respond (auto-answer timeout) within the specified time limit.

User response: Continue problem determination using the hardware service documentation for store controller.

System action: Logged as B4/S010/E005 by Asynchronous Communications. See the B4 information beginning on page 208.

W803 W803 HOST CONFIGURATION FILE PROBLEM B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx*

Severity: 3

Explanation: Host Support unavailable due to a file problem.
The event (E*xxx*) in the message indicates the following:
E001 – Open error
E002 – Read error
E003 – Element name does not exist or is not valid. Unable to find the link configuration.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Based on the event (E*xxx*) that is displayed:
E001 – Verify that the file is present and that the name is spelled correctly.
E002 – Check the return code. Restore the configuration file from the backup using the Restore utility.
E003 – Verify that request configuration exists in the file and the application spells the name correctly.
If the problem persists:

1. Follow the procedure for “Requesting a store controller storage dump” on page 359.
2. Call the IBM Support Center for software assistance and provide the store controller dump information.

System action: Logged as B4/S012/E001, E002, or E003 by Host Support with unique data. See the B4 information beginning on page 208.

W804 W804 HOST ADAPTER LINE *xxxxxxxx* IS NOT OPERATIONAL B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The communications adapter is not functioning properly.
The event (E*xxx*) in the message indicates the following:
E002 – First communications adapter, Async or SDLC is not operational.
E003 – Second communications adapter, Async or SDLC is not operational.

User response: Continue problem determination using the hardware service documentation for store controller.

System action: Logged as:
- B1/S010/E002 or E003 by ASYNC with unique data.
- B1/S015/E002 or E003 by SDLC with unique data.

See the B1 information beginning on page 198.

W806 **W806 HOST COMMUNICATIONS PROBLEM ON LINE** *xxxxxxxx* **B***x***/S***xxx***/E***xxx***

Severity: 3

Explanation: A communications problem has occurred.
The event (E*xxx*) in the message indicates the following:
E007 – Unexpected disconnect message received.
E009 – Data Set Ready (DSR) signal dropped while the line was active.
E010 – The Clear to Send (CTS) signal was not returned by the modem when the Request to Send (RTS) signal was raised.
E012 – External modem signals are not reliable. The interface is not functioning.

User response: Re-establish the connection.
If the problem persists, choose one of the following procedures based on the event (E*xxx*) that is displayed:
E007 – Follow "Problem data collection procedure 8" on page 357.
E009 or E010 – Continue problem determination using the hardware service documentation for your point-of-sale terminal.
E012 – Have the modem serviced.

Programmer response: For **E007** – Analyze the host trace on the problem analysis diskette and correct the host problem based on the analysis.
If the problem persists, examine the configuration record for compatibility.

System action: Logged as B4/S015/E007, E009 or E010 by SDLC with unique data. See the B4 information beginning on page 208.

W807 **W807 HCP COMMAND PROBLEM B***x***/S***xxx***/E***xxx*** FN=***xxxxxxxxxxxx*** RC=***xxxxxxxx*** CMD=***xxxx*** TYPE=***x***

Severity: 3

Explanation: The Activated Data Communication for Stores (ADCS) command being processed by the Host Command Processor resulted in a programming error.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Base your actions on the return code in the message.
If there is a file I/O error, restore the file from the backup using the Restore utility.

System action: Logged as B4/S014/E002 by HCP with unique data. See the B4 information beginning on page 208.

W808 **W808 HCP CANNOT START TRANSLATION PROGRAM B***x***/S***xxx***/E***xxx*** FN=***xxxxxxxxxxxx*** RC=***xxxxxxxx*** CMD=***xxxx*** TYPE=***x***

Severity: 3

Explanation: The file data translation process cannot be started by the Host Command Processor.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Base your actions on the return code in the message.
If the application EALHSIAL.286 is missing from the ADX_IPGM program directory, restore the application from the backup.

System action: Logged as B4/S014/E004 by HCP with unique data. See the B4 information beginning on page 208.

W809 **W809 HCP ENDED DUE TO LINK FAILURE B***x***/S***xxx***/E***xxx*** FN=***xxxxxxxxxxxx*** RC=***xxxxxxxx*** CMD=***xxxx*** TYPE=***x***

Severity: 3

Explanation: The Host Command Processor detected a host error that is unrecoverable. This message can be caused by either hardware or software.

User response: Continue problem determination using the hardware service documentation for your store controller.

Programmer response: Base your actions on the return code in the message. A host I/O error is the most probable cause. The host processor should detect session termination and take appropriate recovery actions.

System action: Logged as B5/S014/E003 by HCP with unique data. See the B5 information beginning on page 221.

W810 W810 NETWORK PROBLEM REPORTING ENDED ABNORMALLY B*x*/S*xxx*/E*xxx*

Severity: 3 for event E003, E004, or E009 or 5 for event E006

Explanation: The Communications and Systems Management (C&SM)/ Network Problem Determination Application (NPDA) process ended abnormally.

The event (E*xxx*) in the message indicates the following:

E003 – The Vital Product Data (VPD) file is missing or the specific record required to identify the Alert source to Network Problem Determination Application (NPDA) is missing.

E004 – The file ADXHSCAF.DAT containing the Alert tables cannot be opened.

E005 – The alerts build process cannot be started because the software maintenance control files (ADXCST_F.DAT) containing the load module names and program information distribution (PID) order numbers cannot be opened.

E006 – The Network Problem Determination Application (NPDA) alert build process has ended abnormally on command from SNA Services.

E009 – The Network Problem Determination Application (NPDA) alert build process has been terminated because of an attempt to run the process in a subordinate store controller.

User response: Base your actions on the event (E*xxx*) that is displayed:

E003, E004, or E009 –
Follow “Problem data collection procedure 1” on page 355.

E006 – Follow “Problem data collection procedure 5” on page 356.

Programmer response: Base your actions on the event (E*xxx*) that is displayed:

E003 – Reconfigure the system to create the VPD file.

E004 – Reconfigure the system to ensure that ADXHSCAF.DAT is present or replace the damaged file from the backup using the Restore utility.

E006 – Base your actions on the return code from SNA Services (B4/S016/E006 entry in the System Log on the Problem Analysis Diskette).

E009 – Configure the system to run C&SM in the master store controller.

System action: Logged as B1 or B4/S013/E003, E004, E005, E006, or E009 by Communications and Systems Management (C&SM). See the B1 information beginning on page 198 or the B4 information beginning on page 208.

W811 W811 NETWORK PROBLEM REPORTING ENDED ABNORMALLY B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx* FUNC NUMBER=*xxxxx*

Severity: 3

Explanation: An operating system FUNCTION CALL has resulted in a bad return code or an operating system function has encountered an error. The Communications and Systems Management (C&SM)/Network Problem Determination Application (NPDA) alert build process was ended.

User response: IPL the store controller, then repeat the steps that caused the problem.
If the problem persists, follow “Problem data collection procedure 3” on page 356.

Programmer response: Base your actions on the return code in the message.

System action: Logged as B1 or B4/S013/E001 by Communications and Systems Management (C&SM) with unique data. See the B1 information beginning on page 198 or the B4 information beginning on page 208.

W812 W812 HOST COMMUNICATIONS LOAD/UNLOAD PROBLEM B*x*/S*xxx*/E*xxx* NAME=*xxxxxxxx* RC=*xxxxxxxx*

Severity: 3

Explanation: This message can be caused by either hardware or software.

The event (E*xxx*) in the message indicates the following:

E003 – Unable to find the link configuration. Element name does not exist or is not valid

E004 – Unable to load host code/subdriver. The probable cause is not enough storage or system resources. If the return code is 80204010 and you are trying to enable an SDLC or X.25 link using an ARTIC card, verify that you have installed files ICAAIM.COM and RICCSSZ.EXE. Refer to *IBM 4690 OS: Planning, Installation, and Configuration Guide*.
E005 – Unable to unload host code/subdriver.
E006 – Host code/subdriver error. Restart in progress.

This message can be caused by attempts to cancel a communications application from the Background screen or from Command Mode.

User response: Note that the "Background Application Cancel" function returns the message 'Canceled' even though the cancelation might not be complete. Allow a reasonable time to lapse before attempting to restart an application after cancelation. You can expect to see several messages displayed after canceling an application.

If this message appeared as a result of canceling a background or communication application:

For a leased telephone line, cancelation normally terminates the link. If it does not, break the physical connection by disconnecting or interrupting power to the modem.

For a switched telephone line, make sure a connection is made.

- **For autoanswer/manual-connect**, place the modem in data mode either by placing a call to the modem or by lifting the handset, placing the modem in data mode, and then hanging up.
- **For autodial (ASYNC only)**, no special procedure is needed.

If this message *did not* appear as a result of canceling a background or communication application, Continue problem determination using the hardware service documentation for store controller.

If no problem is found in the hardware, choose one of the following procedures based on the event (E*xxx*) that is displayed:

E003 – Follow "Problem data collection procedure 1" on page 355.
E004 – Follow "Problem resolution procedure" on page 358.
E005 or E006 – Follow "Problem data collection procedure 3" on page 356.

Programmer response: Choose one of the following procedures based on the event (E*xxx*) that is displayed:

E003 – Reconfigure the appropriate link and activate the configuration.
E004 – The system can be reconfigured so that more storage is available. Refer to *IBM 4690 OS: Planning, Installation, and Configuration Guide* for instructions on calculating storage for communications.
E005 or E006 – Use the information from Problem data collection procedure 3 to correct the problem.

System action: Logged as B4/S012/E003, E004, E005, or E006 by Host Support with unique data. See the B4 information beginning on page 208.

W813 W813 HOST COMMUNICATIONS LINE *xxxxxxxx* WAS IDLE TOO LONG B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: This message can be caused by either hardware or software. Communications was lost because of inactivity (timeout). No information was sent or received within the configured time limit, so the connection was broken.

User response: Continue problem determination using the hardware service documentation for your store controller.

Programmer response: Analyze the host trace on the problem analysis diskette.
If needed, you can increase the configured host timeout limit.

System action: Logged as B4/S015/E008 by SDLC with unique data. See the B4 information beginning on page 208.

W814 W814 SNA LINK IS NOT ACTIVE B*x*/S*xxx*/E*xxx* NAME=*xxxxxxxx* RC=*xxxxxxxx*

Severity: 3

Explanation: This message is generated whenever an *active* SNA link changes to an *inactive* state.

- If the return code is all zeros, the host system ended the link.
- If the return code *is not* all zeros, the return code value indicates the error condition that was detected by communications support.

User response: Take action based on the return code description in Chapter 4, "Return code descriptions" or report the return code value to your store programmer.

Programmer response: Base your actions on the return code in the message.

System action: Logged as B4/S012/E006 by the SNA driver. See the B4 information beginning on page 208.

W815 W815 NETWORK PROBLEM REPORTING ENDED ABNORMALLY B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: Alert support is not available.
The event (E*xxx*) in the message indicates the following:
E001 – Create of Communications and Systems Management (C&SM) process failed.
E002 – C&SM interface pipe error.
E003 – Error from C&SM pipe read.

User response: Follow "Problem data collection procedure 3" on page 356.

System action: Logged as B4/S016/E001, E002, or E003 with unique data. See the B4 information beginning on page 208.

W816 W816 HCP STATUS FILE ADXHSHFF.DAT NOT FOUND B*x*/S*xxx*/E*xxx*

Severity: 4

Explanation: The Host Command Processor (HCP) status file ADXHSHFF.DAT was not found. The status of the command in progress when the session was stopped is lost.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Restore the file directly from the IBM-supplied disks using the Restore utility.

System action: Logged as B4/S014/E005 with unique data. See the B4 information beginning on page 208.

W817 W817 ASYNC HOST UNLOAD PROBLEM B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: ASYNC host unload problem.
The event (E*xxx*) in the message indicates the following:
E006 – Operating system error when releasing storage for internal buffer.
E007 – Operating system error when releasing storage for control block.
E008 – Operating system error when releasing event flag.

User response: Continue problem determination using the hardware service documentation for your store controller.

System action: Logged as:
B4/S010/E006, E007, or E008 by ASYNC.
B4/S051/E006, E007, or E008 by ASYNC.

See the B4 information beginning on page 208.

W818 W818 RCMS COMMAND PROBLEM B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* CMD=*xxxx*

Severity: 3

Explanation: The Distributed Systems Executive (DSX) command being processed by the Remote Change Management Server (RCMS) failed.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Base your actions on the return code in the message.
If there is a file I/O error, restore the file from the backup using the Restore utility.

System action: Logged as B4/S053/E002 by RCMS with unique data. See the B4 information beginning on page 208.

W819 **W819 RCMS ENDED ABNORMALLY B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* CMD=*xxxx***

Severity: 3

Explanation: The Remote Change Management Server (RCMS) detected a host error that is unrecoverable. This message can be caused by either hardware or software.

User response: Continue problem determination using the hardware service documentation for your store controller.

Programmer response: Base your actions on the return code in the message.
A host I/O error is the most probable cause. The host processor should detect session termination and take appropriate recovery actions.

System action: Logged as B5/S053/E003 by RCMS with unique data. See the B5 information beginning on page 221.

W820 **W820 RCMS CANNOT START TRANSLATION PROGRAM B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* CMD=*xxxx***

Severity: 3

Explanation: The file data translation process cannot be started by the Remote Change Management Server (RCMS).

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Base your actions on the return code in the message.
If the application defined by the logical names, EALHSHTD or EAMHSHTP, is missing from the ADX_IPGM program directory, restore the application from the backup.

System action: Logged as B4/S053/E004 by RCMS with unique data. See the B4 information beginning on page 208.

W821 **W821 RCMS USING DEFAULT LINK B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* CMD=*xxxx***

Severity: 4

Explanation: No Link Configuration Record name was specified for the Remote Change Management Server (RCMS) to use for the session with DSX. RCMS is using the default name, ADXLINK.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Use the controller configuration to add the current Link Configuration Record name as a parameter for the background application entry for RCMS.

System action: Logged as B5/S053/E005 by RCMS with unique data. See the B5 information beginning on page 221.

W822 **W822 RCMS INITIALIZATION FAILURE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* CMD=*xxxx***

Severity: 2 or 4

Explanation: An initialization failure occurred. The Remote Change Management Server (RCMS) was unable to complete all initialization for interface with the host Distributed Systems Executive (DSX).
For severity 2, RCMS is unable to support a host session and is terminated. The most probable cause is a lack of system memory.
For severity 4, RCMS continues with the host DSX session, but some commands might fail due to undefined file names. The most probable cause is that the file, ADXHSRNF.DAT, is missing from the system directory, ADX_SPGM, or that the file contains records that are not valid. The ADXHSRNF.DAT file contains the definition of logical file names to actual file names for file access and data transfer by DSX. See the RETRIEVE command description in the *IBM 4690 OS: Communications Programming Reference*.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Base your actions on the return code in the message.

System action: Logged as B5/S053/E006 by RCMS with unique data. See the B5 information beginning on page 221.

W823 W823 (Text is User Defined)

Explanation: The contents of this message are provided by the user and transmitted from the host by the Distributed Systems Executive (DSX).

System action: No logging in the store controller.

W824 W824 PARITY ERROR IN ARTIC ADAPTER RAM B*x*/S*xxx*/E*xxx* CARD=*xx* PAGE=*xx* REG=*xxxx*

Severity: 2

Explanation: A parity error occurred in the ARTIC adapter RAM.

The ARTIC card numbers are:
- First ARTIC Multiport adapter card = Card 0
- Second ARTIC Multiport adapter card = Card 1
- First ARTICx/2 adapter card = Card 2
- Second ARTICx/2 adapter card = Card 3

User response: Continue problem determination using the service documentation for the ARTIC adapter.

Programmer response: Discontinue use of the ARTIC adapter until the problem is corrected.

System action: Logged as B1/S052/E004 with unique data. See the B1 information beginning on page 198.

W825 W825 ARTIC ADAPTER MICROCODE FILE ACCESS ERROR B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: An error occurred while accessing the file, ADXHSX2L.286. This file contains the microcode for the ARTIC adapter.

The ARTIC card numbers are:
- First ARTIC Multiport adapter card = Card 0
- Second ARTIC Multiport adapter card = Card 1
- First ARTICx/2 adapter card = Card 2
- Second ARTICx/2 adapter card = Card 3

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Verify that the file has been copied into the ADX_SPGM subdirectory. Discontinue use of the ARTIC adapter for multiple consoles, serial printers, and communications until the problem is corrected.
Call the IBM Support Center for software assistance.

System action: Logged as B4/S052/E001 with unique data. See the B4 information beginning on page 208.

W826 W826 ARTIC ADAPTER CODE FILE ACCESS ERROR B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx*

Severity: 2

Explanation: An error occurred while accessing the file containing the asynchronous code that resides in the IBM Realtime Interface Co-Processor Multiport/2 adapter.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. Discontinue use of the IBM Realtime Interface Co-Processor Multiport/2 Adapter for the following items until the problem is corrected.
   - If the file name is ADXHSZ1L.EXE, discontinue use of asynchronous communications, serial printers, and multiple consoles.
2. Call the IBM Support Center for software assistance.

System action: Logged as B4/S052/E002 with unique data. See the B4 information beginning on page 208.

W827 **W827 ARTIC ADAPTER HARDWARE PROBLEM B*x*/S*xxx*/E*xxx* CARD NUMBER=*xx***

Severity: 2

Explanation: A problem was detected with the IBM Realtime Interface Co-Processor Multiport/2 Adapter at IPL time.

User response: Verify with your store programmer that the IBM Realtime Interface Co-Processor Multiport/2 Adapter has been installed with a valid interrupt level. The interrupt level must be 12.
If the interrupt level is correct, continue problem determination using the service documentation for the IBM Realtime Interface Co-Processor Multiport/2 Adapter.

Programmer response: Discontinue use of the IBM Realtime Interface Co-Processor Multiport/2 adapter until the problem is corrected.

System action: Logged as B1/S052/E003 with unique data. See the B1 information beginning on page 198.

W828 **W828 HELD ALERT PROCESSING CANCELLED B*x*/S*xxx*/E*xxx* FUNC=*xxxxx***

Severity: 3

Explanation: Processing of held alerts by the C&SM/NPDA process has been terminated due to a bad return code on an operating system function call.

User response: IPL the store controller, then repeat the steps that caused the problem.
If the problem persists, follow “Problem data collection procedure 3” on page 356.

Programmer response: Base your actions on the return code in the message.

System action: Logged as B1 or B4/S013/E010 by Communications and Systems Management (C&SM) with unique data. See the B1 information beginning on page 198 or the B4 information beginning on page 208.

W829 **W829 ASYNC HOST COMMUNICATIONS IS NOT OPERATIONAL B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx***

Severity: 3

Explanation: IBM Realtime Interface Co-Processor Multiport/2 adapter communications are not operational.
The event (E*xxx*) in the message indicates the following:
E001 – Data Set Ready (DSR) signal not raised within a specified time limit; OPEN fails.
E002 – Clear to Send (CTS) signal not raised within a specified time limit; OPEN fails.
E003 – Receive Line Signal Detect (RLSD) not raised within a specified time limit; OPEN fails.
E009 – On a line configured as autodial with a modem that is not attention command set compatible, the Data Set Ready (DSR) signal raised before Data Terminal Ready (DTR) or the Clear to Send (CTS) signal raised before Request to Send (RTS); OPEN fails.

User response: Continue problem determination using the service documentation for the IBM Realtime Interface Co-Processor Multiport/2 adapter.

System action: Logged as B4/S051/E001, E002, E003, or E009 by Asynchronous Communications with unique data. See the B4 information beginning on page 208.

W830 **W830 SDLC/SNA COMMUNICATIONS ENDED ABNORMALLY B*x*/S*xxx*/E*xxx* NAME=*xxxxxxxx* RC=*xxxxxxxx***

Severity: 3

Explanation: An SNA driver internal error occurred.

User response: Try to reestablish the host session. If unable to reestablish it, follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the return code (RC=) in the message.

System action: Logged as B4/S016/E008. See the B4 information beginning on page 208.

W831 **W831 SDLC/SNA COMMUNICATIONS LOAD/UNLOAD PROBLEM B*x*/S*xxx*/E*xxx* NAME=*xxxxxxxx* RC=*xxxxxxxx***

Severity: 3

Explanation: The SNA driver cannot initialize because of a lack of resources.

User response: Try to reestablish the host session. If unable to reestablish, follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the return code (RC=) in the message.

System action: Logged as B4/S016/E009. See the B4 information beginning on page 208.

W832 **W832 3270 EMULATION CANNOT CONTACT SNA DRIVER B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx***

Severity: 3

Explanation: OPEN to the SNA driver failed.

The event (E*xxx*) in the message indicates the following:

- **E003 –** The NODENAME parameter is incorrect, the logical file names for a default name are incorrect, or the SNA driver does not exist on the specified node.
- **E005 –** Code was setting up a define for the link name that failed.
- **E006 –** Configuration problem.
- **E007 –** Code was setting up a define for a session name that failed.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the event (E*xxx*) in the message.

System action: Logged as B4/S058/E003, E005, E006, or E007. See the B4 information beginning on page 208.

W833 **W833 3270 EMULATION CANNOT OPEN FILE FOR LINK/SESSION B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx* NAME=*xxxxxxxx***

Severity: 3

Explanation: Could not OPEN a link. The SNA driver is not responding or is failing. RC= is the return code from the OPEN; NAME indicates the name used to open the link.

The event (E*xxx*) in the message indicates the following:

- **E008 –** The SNA driver does not exist on the specified node.
- **E009 –** There has been too much time (timeout) between the SNA driver receiving the OPEN session special and the OPEN proper; or the OPEN failed for network reasons or operating system reasons.

User response: Try to reestablish the host session. If you are unable to reestablish it, follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the event (E*xxx*) in the message.

System action: Logged as B4/S058/E008 or E009. See the B4 information beginning on page 208.

W834 **W834 3270 EMULATION CONFIGURATION FILE INCOMPLETE OR INVALID B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx***

Severity: 3

Explanation: The configuration file that contains character code conversion tables and operator guidance messages is incomplete or contains data that is not valid.

The event (E*xxx*) in the message indicates the following:

- **E010** – The file is incomplete.
- **E020** – The return code is from file services and indicates an I/O operation.
- **E021** – The return code (RC=) indicates the line number in the file containing configuration data that is not valid.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Correct the configuration file that contains the tables and messages.

System action: Logged as B4/S058/E010, E020, or E021. See the B4 information beginning on page 208.

W835 W835 3270 EMULATION CANNOT OPEN CONFIGURATION FILE B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: The configuration file does not exist or it is on media that cannot be accessed.

User response: Ensure that the node that contains the configuration file is active, then retry the operation. If the retry is unsuccessful, follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the return code (RC=) in the message.

System action: Logged as B4/S058/E011. See the B4 information beginning on page 208.

W836 W836 3270 EMULATION LOST CONTACT WITH SNA DRIVER B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: Could not read or write to the SNA driver session.

User response: Ensure that the network is operating correctly. Try to reestablish the host session. If you are unable to reestablish it, follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the return code (RC=) in the message.

System action: Logged as B4/S058/E012. See the B4 information beginning on page 208.

W837 W837 3270 EMULATION DETECTED ERROR B*x*/S*xxx*/E*xxx* CODE=*xxxx* QUALIFIER=*xxxx*

Severity: 3

Explanation: An internal error occurred in 3270 emulation.

User response: If the code is 0359, check to see if the Proprinter is jammed or out of paper. Try to reestablish the host session. If you are unable to reestablish it, follow “Problem data collection procedure 1” on page 355.

Programmer response: Code 0325 indicates a problem in an application program using the 3270 API. For all other codes, report this message to the IBM Support Center for software assistance.

System action: Logged as B4/S058/E015 or E024. See the B4 information beginning on page 208.

W838 W838 3270 EMULATION CANNOT ACCESS OS TABLE B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: 3270 emulation could not GET/SET a required operating system table.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the return code (RC=) in the message.

System action: Logged as B4/S058/E016. See the B4 information beginning on page 208.

W839 W839 3270 EMULATION ERROR READING KEYBOARD B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: 3270 emulation cannot read the keyboard.

User response: 3270 emulation continues and user response is required.

System action: Logged as B4/S058/E017. See the B4 information beginning on page 208.

W840 W840 3270 EMULATION CANNOT COPY TO SCREEN B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: 3270 emulation cannot write or copy data to the screen.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Take action based on the return code (RC=) in the message.

System action: Logged as B4/S058/E019. See the B4 information beginning on page 208.

W841 W841 3270 EMULATION PRINTER NAME PARAMETER INCORRECT B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: The printer name, either supplied as a parameter or taken as default, is not defined as a standard name (for example, PRN*n*: where *n* is a value of 1 to 8).

User response: Try again with the correct printer name. If the retry is unsuccessful, follow “Problem data collection procedure 1” on page 355.

Programmer response: Check the printer name supplied with the command; otherwise, check the system default printer name.

System action: Logged as B4/S058/E001. See the B4 information beginning on page 208.

W842 W842 3270 EMULATION LINK NAME UNDEFINED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: The link name was not supplied either as a parameter or default (through a logical file name).

User response: Rerun emulation with a suitable link parameter. If the rerun is unsuccessful, follow “Problem data collection procedure 1” on page 355.

Programmer response: Check the link name parameters and logical file names.

System action: Logged as B4/S058/E002. See the B4 information beginning on page 208.

W843 W843 3270 EMULATION ERROR WRITING TO PRINTER B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: 3270 emulation cannot OPEN or WRITE to the printer.

User response: Ensure the printer is powered On. (The 3270 emulation continues running.)

System action: Logged as B4/S058/E018. See the B4 information beginning on page 208.

W844 W844 3270 EMULATION ERROR READING/WRITING API PIPE B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: An I/O error occurred on one of the application program interface (API) pipes while 3270 emulation was under application control. The return code is the file system return code.

User response: Ensure that no other 3270 emulation sessions are using the same session identifier.

System action: Logged as B4/S058/E022. See the B4 information beginning on page 208.

W845 W845 3270 EMULATION ERROR CREATING API PIPE B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: 3

Explanation: An error occurred while 3270 emulation was initializing because 3270 emulation could not create pipes for API use. 3270 emulation continues so that it can be used by the operator. The applications cannot access it. The return code is the I/O system return code caused by the CREATE.

User response: Ensure that no other 3270 emulation sessions are using the same session identifier.

System action: Logged as B4/S058/E023. See the B4 information beginning on page 208.

W846 **W846 3270 EMULATION ERROR IN THE TERMINAL INTERFACE PROGRAM B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx***

Severity: 2, 3, or 4

Explanation: An error occurred in the Terminal Interface Program component (ADXHST0L) that supports 3270 emulation in the terminal.

The event (E*xxx*) in the message indicates the following:

E025 – A read of the pipe writing service (PRS) pipe failed (Severity: 2).
E026 – The open of the Systems Network Architecture (SNA) driver failed (Severity: 3).
E027 – A read of the SNA driver failed (Severity: 3).
E028 – An unrecognizable message was received (Severity: 3).
E029 – A write to the SNA driver failed (Severity: 3).
E030 – An open of the printer failed (Severity: 4).
E031 – A write to the printer failed (Severity: 4).
E032 – A failure was detected while sending data to a terminal (Severity: 3).

Note: Ignore the RC if it is positive (for example, if the first hex digit is 7 or less). Another event with a significant RC is logged.

E033 – A non-numeric argument occurred (Severity: 2).
E034 – An argument that was not valid occurred (Severity: 2).
E035 – An open of the buffer pool file failed (Severity: 2).
E036 – A PRS initialization or CREATE failed (Severity: 2).
E037 – A message was received on a connection that has been closed (Severity: 4).
E038 – A write to a PRS pipe failed (Severity: 2).

User response: Take action based on the event (E***xxx***) that is displayed:

E026, E027, and E029 – Ensure that the links that the 3270 terminal emulation is attempting to use are enabled and operating correctly.

All Other Events – If the problem persists, call the IBM Support Center for software assistance.

System action: Logged as B4/S058/E025 through E038. See the B4 information beginning on page 208.

W847 **W847 3270 EMULATION ERROR IN THE BUFFER MANAGEMENT PROGRAM B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx***

Severity: 3

Explanation: An error occurred in the buffer and TIP Manager component (ADXHSK0L) that supports 3270 emulation in the terminal.

The event (E*xxx*) in the message indicates the following:

E039 – There is a character that is not valid in the command line.
E040 – A command line argument is the wrong size.
E041 – A TIP failed to start.
E042 – A create for the buffer pool file failed.
E043 – A create for the statistics file failed.
E044 – The translate table file initialization failed.
E045 – A read of the statistics file failed.
E046 – An unrecognizable message was received.
E047 – A PRS pipe read error occurred.
E048 – A PRS pipe write error occurred.
E049 – A write to the statistics file failed.
E050 – A PRS initialization error occurred.
E051 – No buffers were available.
E052 – A TIP connection count was wrong.
E053 – The terminal request for connection failed because memory limits would be exceeded.

User response: Take action based on the event (E***xxx***) that is displayed:

E039 and E040 – Correct the parameters passed to ADXHSK0L.

E041, E043, E044, E045, and E049 – Base your action on the return code in the message.

E042 – Ensure that RAM disk T has been configured.

E051 – Enlarge RAM disk T and increase the number of buffers specified in the ADXHSK0L parameter.
E046, E047, E048, E050, E052, and E053 – If the problem persists, call the IBM Support Center for software assistance.

System action: Logged as B4/S058/E039 through E053 See the B4 information beginning on page 208.

W850 **W850 INSUFFICIENT MEMORY FOR ARTIC ADAPTER DUMP B*x*/S*xxx*/E*xxx* CARD NUMBER = *xx***

Severity: 3

Explanation: A program check occurred on the ARTIC adapter forcing a dump of its memory. However, the dump was stopped because the controller lacked sufficient memory to allocate a dump file buffer.

The ARTIC card numbers are:
- First ARTIC Multiport adapter card = Card 0
- Second ARTIC Multiport adapter card = Card 1
- First ARTICx/2 adapter card = Card 2
- Second ARTICx/2 adapter card = Card 3

User response: Determine if there has been a memory hardware failure by using the memory diagnostics for your store controller. If so, have the memory hardware repaired. If no memory hardware problem exists, follow “Problem data collection procedure 1” on page 355.

System action: Logged as B5/S052/E005 with unique data. The ARTIC adapter card that caused the dump is identified. See the B5 information beginning on page 221.

W851 **W851 INSUFFICIENT DISK SPACE FOR ARTIC ADAPTER DUMP B*x*/S*xxx*/E*xxx* CARD NUMBER = *xx***

Severity: 3

Explanation: A program check occurred on the ARTIC adapter forcing a dump of its memory. A complete dump could not be written to the hard disk drive because of insufficient space.

The ARTIC card numbers are:
- First ARTIC Multiport adapter card = Card 0
- Second ARTIC Multiport adapter card = Card 1
- First ARTICx/2 adapter card = Card 2
- Second ARTICx/2 adapter card = Card 3

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. Remove any old, unused files from the hard disk drive.
2. Run the Check Disk utility to see how much space is unused on the hard disk drive.
3. Attempt to recover the unused space.

System action: Logged as B5/S052/E006 with unique data. The ARTIC adapter card that caused the dump is identified. See the B5 information beginning on page 221.

W852 **W852 CRITICAL SNA ERROR OCCURRED - COMMUNICATIONS ENDED B*x*/S*xxx*/E*xxx* MOD ID = *xxx* LOC ID = *xxx* RC = *xxxxxxxx***

Severity: 1

Explanation: An SNA error occurred and communications terminated. Communications cannot be initiated until the store controller is IPLed.

Note: If the Communications Dump option on the CONTROLLER CHARACTERISTICS panel is set to Yes, then a store controller dump occurs instead of this message. If the option is set to No, you are not allowed to enable any more SNA communications.

The Loc ID (LOC ID = *xxx*) in the message indicates the following:

```
LOC ID = 001 - SDLC subdriver used for Multiprotocol
               Communications Adapter (MPCA) cards
LOC ID = 003 - SDLC task on first ARTIC Multiport adapter card
```

```
LOC ID = 005 - SDLC task on second ARTIC Multiport adapter card
LOC ID = 009 - SNA driver process
LOC ID = 010 - SNA driver routine
LOC ID = 011 - SNA driver front end
```
Mod IDs 1-24 and 255 see the internal modules.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Base your actions on the return code in the message. See "Communication return codes 80Bxxxxx" on page 296 for a description of the return code.

System action: Logged as B4/S016/E067 with unique data. See the B4 information beginning on page 208.

W853 **W853 TOKEN RING DATA LINK CONTROL PARAMETER OUT OF RANGE B*x*/S*xxx*/E*xxx* Parameter = *xxxxxxxx***

Severity: 3

Explanation: A user-defined logical name that specifies a data link control parameter for SNA on token ring has been set to a value outside the valid range. The logical name is identified after the *PARAMETER =* field in the system message.

User response: Correct the logical name definition. Refer to the description of the token-ring, SNA, tunable parameters in the *IBM 4690 OS: Communications Programming Reference*.

System action: Logged as B4/S016/E079.

W854 **W854 ERROR SETTING TOKEN RING DATA LINK CONTROL PARAMETER B*x*/S*xxx*/E*xxx* Parameter = *xxxxxxxx* RC= *xxxxxxxx***

Severity: 3

Explanation: An error occurred while processing a user-defined logical name that specifies a token-ring, data link control parameter for SNA on token ring. The default parameter is used instead of the user-defined logical name assignment. The *PARAMETER =* field specifies which logical name was being processed when the error occurred and the *RC =* field specifies the operating system error return code. See Chapter 4, "Return code descriptions."

User response: Ensure that the logical name definition is correct. Refer to the description of the token-ring, SNA, tunable parameters in the *IBM 4690 OS: Communications Programming Reference*.

Programmer response: Logged as B4/S016/E080

W855 **W855 SDLC EVENT OCCURRED B*x*/S*xxx*/E*xxx* MOD ID = *xxx* LOC ID = *xxx* RC = *xxxxxxxx***

Severity: 2, 3, 4, or 5

Explanation: An SDLC event was detected.

The Loc ID (LOC ID = *xxx*) in the message indicates the following:

```
LOC ID = 001 - SDLC subdriver used for Multiprotocol
               Communications Adapter (MPCA) cards
LOC ID = 003 - SDLC task on first ARTIC Multiport adapter card
LOC ID = 005 - SDLC task on second ARTIC Multiport adapter card
LOC ID = 009 - SNA driver process
LOC ID = 010 - SNA driver routine
LOC ID = 011 - SNA driver front end
```
Mod IDs 1-24 and 255 see the internal modules.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Base your actions on the return code in the message. See "Communication return codes 80Bxxxxx" on page 296 for a description of the return code.

System action: Logged as B4/S015/E067 or E076 with unique data. See the B4 information beginning on page 208.

W856 W856 X.25 EVENT OCCURRED B*x*/S*xxx*/E*xxx* MOD ID = *xxx* LOC ID = *xxx* RC = *xxxxxxxx*

Severity: 2, 3, 4, or 5

Explanation: An X.25 event has occurred.

The event (E*xxx*) in the message indicates the following:

E002 – A control block shortage exists.
E003 – A buffer shortage exists.
E004 – There is an incorrect configuration file.
E005 – No X.25 configuration file exists.
E006 – There is an error in the X.25 configuration file format.
E007 – An unexpected open occurred from the Systems Network Architecture (SNA) driver.
E008 – Unable to establish an X.25 call.
E009 – An unexpected packet was received.
E010 – An incorrect packet was received.
E011 – An error occurred on a permanent virtual circuit (PVC).
E012 – Established connection with the SNA driver.
E013 – The connection to the SNA driver was resumed.
E014 – There is a problem with the SNA driver connection.
E015 – An internal error occurred.
E064 – This is the X.25 modem status. See the 80BExxxx
E066 – A critical X.25 error occurred. The X.25 driver stopped running on an ARTIC adapter.

The Loc ID (LOC ID = *xxx*) in the message indicates the following:

```
LOC ID = 007 - X.25 task on first ARTICx/2 adapter card
LOC ID = 008 - X.25 task on second ARTICx/2 adapter card
```

Mod IDs 1-24 and 255 see the internal modules.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Base your actions on the return code in the message. See “Communication return codes 80Bxxxxx” on page 296 for a description of the return code.

System action: Logged as B4/S006/E002, E003, E004, E005, E006, E007, E008, E009, E010, E011, E012, E013, E014, E015, E064, or E066 with unique data. See the B4 information beginning on page 208.

W857 W857 SNA EVENT OCCURRED B*x*/S*xxx*/E*xxx* MOD ID = *xxx* LOC ID = *xxx* RC = *xxxxxxxx*

Severity: 2 through 5

Explanation: An event was detected by SNA.

The event (E*xxx*) in the message indicates the following:

E065 – An initialization error has occurred.
E067 – An operating system error has occurred.
E068 – An interface error has occurred.
E069 – A link error has occurred.
E071 – A state error has occurred.
E072 – A terminate error has occurred.
E073 – An internal software error has occurred.
E074 – LU 6.2 Transaction Program (TP) data has been logged.

The Loc ID (LOC ID = *xxx*) in the message indicates the following:

```
LOC ID = 001 - SDLC subdriver used for Multiprotocol
               Communications Adapter (MPCA) cards
LOC ID = 003 - SDLC task on first ARTIC Multiport adapter card
LOC ID = 005 - SDLC task on second ARTIC Multiport adapter card
LOC ID = 007 - X.25 task on first ARTICx/2 adapter card
LOC ID = 008 - X.25 task on second ARTICx/2 adapter card
LOC ID = 009 - SNA driver process
LOC ID = 010 - SNA driver routine
LOC ID = 011 - SNA driver front end
```

Mod IDs 1-24 and 255 see the internal modules.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Base your actions on the return code in the message. See “Communication return codes

80Bxxxxx" on page 296 for a description of the return code. If the return code is 80204010 and you are trying to enable an SDLC or X.25 link using an ARTIC card, verify that you have installed files, ICAAIM.COM and RICCSSZ.EXE. Refer to *IBM 4690 OS: Planning, Installation, and Configuration Guide*.

System action: Logged as B4/S016/E065, E066, E067, E068, E069, E070, E071, E072, E073, or E074 with unique data. See the B4 information beginning on page 208.

W858 W858 LAN ADAPTER FAILURE DETECTED B*x*/S*xxx*/E*xxx*

Severity: 1

Explanation: The LAN driver has reported a LAN adapter failure. The adapter support software closes the adapter and all LAN communications stop. The adapter support software assumes this is an unrecoverable error.

User response: If the error continues, replace the LAN adapter.

System action: Logged as B5/S018/E003. See the B5 information beginning on page 221.

W859 W859 TOKEN-RING ERROR OCCURRED B*x*/S*xxx*/E*xxx* MOD ID = *xxx* LOC ID = *xxx* RC = *xxxxxxxx*

Severity: 2

Explanation: A token-ring error has occurred

The event (E*xxx*) in the message indicates the following:

E075 – The specified remote token-ring node address is the same as the local token-ring node address.
E077 – Two or more token-ring links that have the same partner token-ring node address configured are currently activated. You can only activate one link for a given partner token-ring node.
E078 – A cable has been disconnected.

The Loc ID (LOC ID = *xxx*) in the message indicates the following:

```
LOC ID = 009 - SNA driver process
```

Mod IDs 1-24 and 255 see the internal modules.

User response: Take action based on the event (E***xxx***) that is displayed:

E075 – Change the remote token-ring node address specified in the token-ring link definition record.
E077 – Change the configuration link record so that there is not more than one token-ring link with the same partner token-ring node address and with auto-activate specified.

Check that a token-ring peer link and a token-ring subarea link have not both been specified with the same token-ring address. The subarea token-ring link can normally be used to support peer communications as well.
E078 – Reconnect the disconnected cable.

System action: Logged as B5/S021/E075, E077, or E078. See the B5 information beginning on page 221.

W860 W860 LU6.2 TP DATA LOGGED B*x*/S*xxx*/E*xxx* MOD ID = *xxx* LOC ID = *xxx* RC = *xxxxxxxx*

Severity: 1

Explanation: LU 6.2 Transaction Program (TP) data has been logged.

The Loc ID (LOC ID = *xxx*) in the message indicates the following:

```
LOC ID = 011 - SNA driver front end
```

Mod IDs 1-24 and 255 see the internal modules.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Base your actions on the return code in the message. See "Communication return codes 80Bxxxxx" on page 296 for a description of the return code.

System action: Logged as B4/S016/E074 with unique data. See the B4 information beginning on page 208.

W861 W861 CRITICAL SDLC ERROR OCCURRED - COMMUNICATIONS ENDED B*x*/S*xxx*/E*xxx* MOD ID=*xxx* LOC ID=*xxx*

Severity: 1

Explanation: An SDLC error was detected and communications have been terminated. Communications cannot be initiated until the store controller is IPLed.

Note: If the 'Communications Dump' option on the CONTROLLER CHARACTERISTICS panel is set to Yes, then a store controller dump occurs instead of this message. The W598 message is logged when the controller re-IPLs following the dump. It can be used to determine if a dump was caused by a critical communications error.

The event (E*xxx*) in the message indicates the following:

E066 – An SDLC driver on an ARTIC adapter card stopped running.

E067 – An SDLC error was detected on Multiprotocol Communications Adapter (MPCA) card 1 or MPCA card 2.

E068 – An interface error occurred loading the MPCA SDLC communications subdriver.

E070 – A resource error occurred loading the MPCA SDLC communications subdriver.

The Loc ID (LOC ID = *xxx*) in the message indicates the following:

```
LOC ID = 001 - SDLC subdriver used for MPCA cards
LOC ID = 003 - SDLC task on first ARTIC Multiport adapter card
LOC ID = 005 - SDLC task on second ARTIC Multiport adapter card
LOC ID = 007 - X.25 task on first X.25 ARTICx/2 adapter card
LOC ID = 008 - X.25 task on second X.25 ARTICx/2 adapter card
LOC ID = 009 - SNA driver process
LOC ID = 010 - SNA driver routine
LOC ID = 011 - SNA driver front end
```

Mod IDs 1-24 and 255 see the internal modules.

User response: Choose one of the following based on the event (E*xxx*) that is displayed:

E066 – Check that the required ARTIC adapters' components have been installed in the ADX_SPGM subdirectory and check the 4680 ARTIC adapter configuration. If the error is not found, follow "Problem data collection procedure 1" on page 355.

E067 – Follow "Problem data collection procedure 1" on page 355.

E068 – The system attempted to load too many units of the host driver. Check the host configuration. If the error is not found, follow "Problem data collection procedure 1" on page 355.

E070 – System resources were exceeded while loading the MPCA SDLC communications subdriver. Reduce the number of active users or applications and try again. If the error is not found, follow "Problem data collection procedure 1" on page 355.

Programmer response: Base your actions on the return code in the message. See "Communication return codes 80Bxxxxx" on page 296 for a description of the return code.

System action: Logged as B4/S015/E066, E067, E068, E070 with unique data. See the B4 information beginning on page 208.

W862 **W862 CRITICAL X.25 ERROR OCCURRED - COMMUNICATIONS ENDED B*x*/S*xxx*/E*xxx* MOD ID = *xxx* LOC ID = *xxx* RC = *xxxxxxxx***

Severity: 1

Explanation: A critical X.25 error has occurred. Communications cannot be initiated until the store controller is IPLed.

Note: If the Communications Dump option on the CONTROLLER CHARACTERISTICS panel is set to Yes, then a store controller dump occurs instead of this message. The W598 message is logged when the controller re-IPLs following the dump. It can be used to determine if a dump was caused by a critical communications error.

The event (E*xxx*) in the message indicates the following:

E001 – The X.25 communications component is not initialized.

E066 – The X.25 driver stopped running on an ARTICx/2 adapter card.

The Loc ID (LOC ID = *xxx*) in the message indicates the following:

```
LOC ID = 007 - X.25 task on first X.25 ARTICx/2 adapter card
LOC ID = 008 - X.25 task on second X.25 ARTICx/2 adapter card
```

Mod IDs 1-24 and 255 see the internal modules.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Base your actions on the return code in the message. See "Communication return codes 80Bxxxxx" on page 296 for a description of the return code.

System action: Logged as B4/S006/E001 or E066 with unique data. See the B4 information beginning on page 208.

W863 through W870 W863 through W870 (No message text)

Explanation: Find this information in the *IBM 4680 Store System Distributed Data Management: User's Guide*.

System action: No logging in the store controller.

W872 W872 COMMUNICATIONS AND SYS. MANAGEMENT EVENT HAS OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: A communications and system management event has occurred.

The event (E*xxx*) in the message indicates the following:

E000 – Recovery from a read error. The system was able to retrieve a sensor reading on a subsequent attempt after a failure was detected.

E001 – Error on internal OS call. If "READ ERROR" is logged in the Unique Data, it means the system failed to retrieve a sensor reading from the service processor. E000 is logged when this condition recovers.

E002 – The system is unable to send alerts for an extended period of time.

E003 – Error accessing vital product data file.

E004 – Error accessing the alert table file.

E005 – Error accessing a product control file.

E006 – The process has been terminated by SNA Services.

E007 – Transmission of alerts has been temporarily suspended by the system.

E008 – The process has been initiated.

E010 – The system has finished processing held alerts.

E050 – This event is logged for SSD usage monitor to display SSD % used when running in Enhanced Mode.

E100 – A temperature sensor current reading exceeds the sensor's upper critical threshold. This event is logged for models 4800-742, 4800-782, and 4800-C42. When Event 100 is logged, the message Severity will be 2. For every hour (once every hour) that the sensor's upper critical threshold is exceeded, this event will be logged.

User response: If any one of these events are logged frequently, follow the "Problem data collection procedures" on page 355.

System action: Logged as B5/S013/E001, E002, E003, E004, E006, E007, E008, E100, or B2/S013/E000, E001, E100 or B1/S013/E000, E001, E100. See the B5 information beginning on page 221. Refer to Bucket 1 for Controller Hardware Events if on a Controller or Controller/Terminal. Refer to Bucket 2 for Terminal Hardware Events if on a Terminal. See the B1 information beginning on page "B1 - Store Controller Hardware Errors" on page 198 or see the B2 information beginning on page "B2 - Terminal Hardware Errors" on page 199.

W874 W874 RCM WAITING FOR NEXT COMMAND B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: Session initialization is complete and waiting for the first host command or the last command is complete and waiting for the next command.

System action: Logged as B5/S053/E041. See the B5 information beginning on page 221.

W875 W875 TCP/IP INITIALIZATION FAILURE B*4*/S005/E001 FN=*nnnnnnnn* RC=*xxxxxxxx*

Explanation: An error executing the initialization batch file, ADX_SDT1:ADXIP??Z.BAT, occurred.

System action: Logged as B4/S005/E001 with unique data. See the B4 information beginning on page 208.

W876 W876 TCP/IP TOKEN RING NETWORK ERROR B*4*/S005/E*xxx* FN=*xxxxxxxx* RC=*xxxxxxxx*

Explanation: The TCP/IP driver has been notified of a token-ring network error by the token-ring driver.

User response: Take action based on the event logged.

E002 Token-ring adapter check– The token-ring adapter has failed. This is a non-recoverable error.

E003 Set_User_Appendage failed– The TCP/IP driver cannot register itself with the token-ring network driver.

E004 Open Service_Access_Point (SAF) failed– The Open SAP request issued by the TCP/IP driver to the token-ring driver failed. No TCP/IP network data can be sent or received on the token-ring when the Open SAP request fails.
E005 Receive_Modify failed – The TCP/IP driver cannot register its receive data location with the token-ring driver. No TCP/IP data can be sent or received.

System action: Logged as B4/S005/E*xxx* with unique data. See the B4 information beginning on page 208.

W877 W877 TCP/IP CRITICAL COMMUNICATIONS FAILURE B*4*/S005/E*xxx* RC=*xxxxxxxx*

Explanation: The TCP/IP driver has detected an internal critical error. This error is nonrecoverable.

User response: Take action based on the event logged.
E006 Out of memory buffers – The TCP/IP driver has run out of internal memory buffers and cannot obtain any more.
E007 Memory allocation failure – The TCP/IP driver cannot obtain system memory when it attempts to allocate the store for its own use.

System action: Logged as B4/S005/E*xxx* with unique data. See the B4 information beginning on page 208.

W878 W878 TCP/IP FILE ACCESS ERROR B*4*/S005/E001

Explanation: Depending on the value of FN, this message indicates one of the following:

IOCTLERR
The FTPD Server (ADXHSIFL.286) encountered a problem attempting to disable nonblocking on the control socket.

MEMORYER
The FTPD Server (ADXHSIFL.286) could not obtain sufficient memory.

ADXHSIUF
The FTPF Server (ADXHSIFL.286) could not find or could not open the TRUSERS file.

ADXHSIXF
The NSFD Server (ADXHSINL.286) could not find or could not open the EXPORTS file.

System action: Logged as B4/S005/E001. See the B4 information beginning on page 208.

W879 W879 SNMP TRAP — COLD STARTED

Severity: 4

Explanation: This message is logged when the SNMP agent is started. It indicates that the cold-start trap has been sent to the SNMP network monitor.

W880 W880 SNMP TRAP - AUTHENTICATION FAILURE B*4*/S003/E002 IP ADDR=xxx.xx.xxx.xxx

Severity: 3

Explanation: This message is logged if the SNMP agent detects that an unauthorized SNMP network monitor has attempted to access its MIB variables. The Authentication-Failure trap is sent to the agent's authorized network monitor.

System action: Logged as B4/S003/E002 with unique data. See the B4 information beginning on page 208.

W881 W881 SNMP CRITICAL MEMORY FAILURE B*4*/S003/E003 RC=*xxxxxxxx*

Severity: 2

Explanation: This message indicates that the SNMP agent cannot allocate sufficient memory to run. The agent program logs this message and exits.

System action: Logged as B4/S003/E003 with unique data. See the B4 information beginning on page 208.

W882 **W882 SNMP COMMUNITY NAME FILE NOT FOUND B4/S003/E004 FN=*xxxxxxxx***

Severity: 2

Explanation: This message indicates that the SNMP agent could not locate the community name file in encrypted form. This file should be generated using ADXHSI8L.286 from the un-encrypted community name file, ADX_SDT1:ADXHSIQF.DAT. The encrypted file output is named ADX_SDT1:ADXHSIEF.DAT and must be build before the SNMP agent is started. The agent program logs this message and exits.

System action: Logged as B4/S003/E004 with unique data. See the B4 information beginning on page 208.

W883 **W883 SNMP LOGICAL NAME FILE NOT FOUND B*4*/S003/E004 NAME=*xxxxxxxx***

Severity: 2

Explanation: This message indicates that the SNMP agent cannot find an entry in the 4690 configuration for the logical name identified in the NAME field of the unique data. The agent program logs this message and exits.

System action: Logged as B4/S003/E004 with unique data. See the B4 information beginning on page 208.

W885 **W885 B*x*/S*xxx*/E*xxx***

Severity: 3

Explanation: A common communications error has occurred.

User response: Choose one of the following responses based on the event number (Exxx) that is displayed.
E007 Common Communications – An error occurred during communications initialization. Communication functions are not possible.
E008 Common Communications – A request that was not valid for a communication function such as open link or open line was made. The error might have occurred because a parameter was specified that is not valid.
E009 Common Communications – A communications adapter (MPCA, or ARTIC Multiport, or X2X/X.25) is installed with an incorrect reference diskette setup. The unique data field contains the number of the PC adapter slot that is failing. Refer to the *IBM 4690 OS: Planning, Installation, and Configuration Guide* for the correct settings.

Programmer response: Base your actions on the event code in the message.

System action: Logged as B4/S012/Exxx with unique data. See the B4 information beginning on page 208.

W889 **W889 FTP CONNECTION FROM <IP address> B4/S*xxx*/E030**

Explanation: A connection has been established using FTP with the remote client IP address.

User response: Information only.

System action: Logged as B4/S*xxx*/E030 with unique data.

W890 **W890 FTP LOGIN <user ID> B4/S*xxx*/E030**

Explanation: The specified user ID has logged on using FTP. This user may now access files as specified by the configured access privileges for this FTP user.

User response: Information only.

System action: Logged as B4/S*xxx*/E030 with unique data.

W891 **W891 FTP LOGOUT <user ID> B4/S*xxx*/E030**

Explanation: The specified user ID has logged off, ending the FTP session.

User response: Information only.

System action: Logged as B4/S*xxx*/E030 with unique data.

W892 W892 FTP/SSH FAILED LOGIN FROM B4/S*xxx*/E*xxx*

Explanation: An invalid attempt has been made to log on using FTP from the client IP address specified in the message. The event in the message indicates the following:

E035 An attempt to log on with an invalid user ID or invalid password occurred.
E036 The configured limit for number of invalid attempts has been reached. The user ID has been locked out.
E037 The overall limit of invalid login attempts has been reached. FTP server usage is currently blocked.

User response: This message might indicate an unauthorized attempt to access the file system. Take action as appropriate.

System action: Logged as B4/S*xxx*/E*xxx* with unique data.

W893 W893 TELNET CONNECTION FROM <IP address> B5/S*xxx*/E040

Explanation: A Telnet connection has been established with the remote client IP address.

User response: Information only.

System action: Logged as B5/S*xxx*/E040 with unique data.

W894 W894 TELNET DISCONNECT FROM <IP address> B5/S*xxx*/E040

Explanation: The Telnet connection with the remote client IP address has ended.

User response: Information only.

System action: Logged as B5/S*xxx*/E040 with unique data.

W895 W895 INETD STATUS HAS CHANGED TYPE=n B5/S019/E050

Explanation: The INETD server has either started or stopped. The TYPE value indicates what status change has occurred.

0 INETD is started

1 INETD is stopped

User response: Information only.

System action: Logged as B5/S019/E050 with unique data.

W896 W896 INETD FAILED TO START SERVICE FOR *xxx* B5/S019/E050

Explanation: The INETD superserver failed to start the service indicated in the message. INETD and other services started by INETD will continue to run.

User response: Verify that the failed service is configured correctly in the ADX_SDT1:ADXHSIIF.DAT file. Verify that the server IP port for the failed service is not already in use.

System action: Logged as B5/S019/E050 with unique data.

W900 W900 (No Message Text)

Severity: 1

Explanation: This store controller does not have a node ID.

User response: Key in a valid node ID for this controller, then press **Enter**. Refer to *IBM 4690 OS: Planning, Installation, and Configuration Guide* and the *IBM 4690 OS: User's Guide* for information about valid store controller node IDs.

To change the node ID after it has been entered:

1. IPL the store controller using the Supplemental Diskette or the Supplemental option on the CD-ROM.
2. From command mode, type ADXNSX0L *nn* and press **Enter** (where *nn* is the store controller node ID that corresponds to the node dependent files installed on this controller.)
3. Remove the Supplemental Diskette or CD-ROM and IPL the store controller.

System action: No logging in the store controller. Message W909 is logged when you respond to this message. See message W909.

W901 W901 NO ACTING MASTER CONTROLLER FOUND

Severity: 2

Explanation: During the IPL process, the store controller displaying message W901 could not find an acting master store controller. This message continues to display until the acting master completes the IPL process and W905 is cleared from the display at the acting master. This message then clears from the store controller display without operator intervention.

Note: When there is no acting master store controller, system and application compound files cannot be updated and system mirrored files cannot be updated. You cannot sign on to the store controller that is displaying message W901 until the master store controller is found and reconciliation is attempted or until **F1** is pressed and the store controller completes its IPL.

If done cautiously, the Exception Log can be modified to shorten the time required for reconciliation. However, data integrity can be compromised if the Exception Log is modified.

User response: Check the acting master store controller.

If the acting master store controller is up or coming up:

1. Return to the store controller displaying message W901 and verify that the message is cleared from the display.
2. If message W901 is not cleared, go to the *failing* store controller and follow “Problem data collection procedure 1” on page 355.

If the acting master store controller is *not* up or coming up:

1. Activate the alternate master store controller as acting master store controller. Refer to *IBM 4690 OS: User's Guide*.
2. Continue problem determination using the service documentation for your store controller.

Programmer response:

1. Verify that the acting master store controller is activated by displaying the status of the acting master. See “Requesting store controller status” on page 383.
2. If the acting master store controller is activated, verify that the *configurations* of the store controller displaying message W901 and the acting master store controller are activated. Refer to *IBM 4690 OS: User's Guide*.
3. If the *configurations* are activated, verify that they are correct. Refer to *IBM 4690 OS: User's Guide*.
4. If all the previous conditions are correct and message W901 is still not cleared at the subordinate store controller:
   a. Follow the procedure for “Requesting a store controller storage dump” on page 359 at the store controller displaying message W901.
   b. Call the IBM Support Center for software assistance and provide the store controller dump information.

Note: Press **F1** to clear the W901 message and continue processing at the store controller. The store controller remains on the LAN and reconciliation occurs when the file server is back on line.

System action: Normally, no logging in the store controller. Logged as B5/S020/E008 if F2 is pressed. See Message W908 for more information.

W902 W902 NO ACTING FILE SERVER CONTROLLER FOUND

Severity: 2

Explanation: During the IPL process, the store controller displaying message W902 could not find an acting file server. This message continues displaying until the acting file server completes the IPL process and W905 is cleared from the display at the acting file server. This message then clears from the store controller display without operator intervention.

Note: When there is no acting file server, application mirrored files cannot be updated. You cannot sign on to the store controller that is displaying message W902 until the file server is found and reconciliation is attempted or until the operator presses F1 or F2 and the store controller completes its IPL.

If done cautiously, the Exception Log can be modified to shorten the time required for reconciliation. However, data integrity can be compromised if the Exception Log is modified.

User response: Check the acting file server.

If the acting file server is up or coming up:

1. Return to the store controller displaying message W902 and verify that the message is cleared from the display. If message W902 is not cleared, go to the *failing* store controller and follow "Problem data collection procedure 1" on page 355.

If the acting file server is *not* up or coming up:

1. Activate the alternate file server as acting file server. Refer to *IBM 4690 OS: User's Guide*.
2. Report this problem to your store programmer.
3. Continue problem determination using the service documentation for your store controller.

Programmer response:

1. Verify that the acting file server is activated by displaying the status of the acting file server. See "Requesting store controller status" on page 383.
2. If the acting file server is activated, verify that the *configurations* of the store controller displaying message W902 and the acting file server are activated. Refer to *IBM 4690 OS: User's Guide*.
3. If the *configurations* are activated, verify that they are correct. Refer to *IBM 4690 OS: User's Guide*.
4. If all of the above conditions are correct and message W902 is still not cleared at the subordinate store controller:
   a. Follow the procedure for "Requesting a store controller storage dump" on page 359 at the store controller that is displaying message W902.
   b. Call the IBM Support Center for software assistance and provide the store controller dump information.

Note: To clear the W902 message and continue processing at the store controller, press **F2**.

Attention: The store controller remains on the LAN and reconciliation occurs when the file server comes on line, if the operator presses F2.

System action: Normally, no logging in the store controller. Logged as B5/S020/E009 if F2 is pressed.

Note: See Message W908 for more information.

W903 W903 WAITING FOR UPDATE FROM THE ACTING MASTER CONTROLLER

Severity: 2

Explanation: During the IPL process, this store controller has found an acting master store controller and a message has been sent requesting system reconciliation. When the files have been reconciled, this message clears from the screen without operator intervention.

Note: You cannot sign on to the store controller that is displaying message W903 until reconciliation is attempted for the files in the Exception Log.

If done cautiously, the Exception Log can be modified to shorten the time required for reconciliation. However, data integrity can be compromised if the Exception Log is modified.

User response: Look for message W905 at the acting master store controller. The W903 message clears when message W905 is cleared from the acting master store controller. The names of the files currently being reconciled display on the panel.

If message W903 is not cleared, follow "Problem data collection procedure 1" on page 355.

Programmer response:

1. Check the System Log in the acting master store controller for messages logged by the Multiple Controller Feature and take the action indicated by the messages.
2. If message W903 is not cleared:
   a. Follow the procedure for "Requesting a store controller storage dump" on page 359 at this store controller and the acting master store controller.
   b. Call the IBM Support Center for software assistance and provide the store controller dump information.

Note: Press **F1** to clear the W903 message and continue processing at the store controller.

Attention: Pressing F1 enables reconciliation to continue, but the TCC Network becomes active. This introduces the risk of an application reading back-level data.

System action: Normally, no logging in the store controller. Logged as B5/S020/E010 or E016, if F1 is pressed. See Message W908 for more information.

W904 W904 WAITING FOR UPDATE FROM ACTING FILE SERVER CONTROLLER

Severity: 2

Explanation: During the IPL process, this store controller has found an acting file server and a message has been sent requesting system reconciliation. When the files have been reconciled, this message is cleared from the screen without operator intervention.

Note: You cannot sign on to the store controller that is displaying message W904 until reconciliation is attempted for the files in the Exception Log.

If done cautiously, the Exception Log can be modified to shorten the time required for reconciliation. However, data integrity can be compromised if the Exception Log is modified.

User response: Look for message W905 at the acting master store controller. The W904 message is cleared when message W905 is cleared from the acting master store controller. The names of the files currently being reconciled are displayed on the screen.

If this W904 message is not cleared: follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. Check the System Log in the acting file server for messages logged by the Multiple Controller Feature and take the action indicated by the messages.
2. If message W904 is not cleared:
   a. Follow the procedure for “Requesting a store controller storage dump” on page 359 at this store controller and the acting file server.
   b. Call the IBM Support Center for software assistance and provide the store controller dump information.

Note: To clear the W904 message and continue processing at the store controller, press **F2**.

Attention: The store controller remains on the LAN and reconciliation occurs when the file server comes on line, if the operator presses F2.

System action: Normally, no logging in the store controller. Logged as B5/S020/E011 or E017, if F1 or F2 is pressed. See Message W908 for more information.

W905 W905 UPDATING ALTERNATE/SUBORDINATE CONTROLLERS

Severity: 5

Explanation: Distributed file reconciliation is taking place as part of the IPL process. After the files have been reconciled, this message clears from the screen without operator intervention. This message appears on the acting file server or the acting master store controller at IPL time.

System action: No logging in the store controller.

W906 W906 UPDATE FROM ACTING MASTER WAS UNSUCCESSFUL B*x*/S*xxx*/E*xxx* ID=*xxxxxxxxxx*

Severity: 1

Explanation: One or more distributed file reconciliations failed. This message appears on the subordinate store controller where the problem occurred. One or more files can be back level from the files on the acting master store controller.

The event (E*xxx*) in the message indicates the following:

E004 – During an IPL on this store controller, distributed file reconciliation failed on Applied Software Maintenance files.
E006 – During an IPL on this store controller, distributed file reconciliation failed on files other than Applied Software Maintenance files.
E047 – During an IPL on the master store controller, distributed file reconciliation failed on Applied Software Maintenance files.
E049 - During an IPL on the master store controller, distributed file reconciliation failed on files other than Applied Software Maintenance files.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: This problem can be bypassed by altering the Exception Log in the acting master store controller. To alter the Exception Log:

1. Use the Distributed File Utility (DFU) on the acting master store to determine what file updates failed. These are indicated by entries in the Exception Log shown by the DFU.
2. Use the DFU to force distribution and the entries are removed.

Note: For event E004 or E006, press **F1** to clear the W906 message and continue processing at the store controller.

Attention: The store controller is not a part of the MCF Network if the operator presses F1 when this message is displayed.

System action: Logged as B5/S020/E004, E006, E047, or E049 with unique data. See the B5 information beginning on page 221. If the operator presses F1, the event is logged as B5/S020/E002 or E012. See Message W908.

W907 W907 UPDATE FROM ACTING FILE SERVER WAS UNSUCCESSFUL B*x*/S*xxx*/E*xxx* ID=*xxxxxxxxxx*

Severity: 1

Explanation: One or more distributed file reconciliations failed. This message appears on the subordinate store controller where the problem occurred. One or more files can be back level from the files on the acting file server.
The event (E*xxx*) in the message indicates the following:
E005 – During an IPL on this store controller, distributed file reconciliation failed on Applied Software Maintenance files.
E007 – During an IPL on this store controller, distributed file reconciliation failed on files other than Applied Software Maintenance files.
E048 – During an IPL on the file server, distributed file reconciliation failed on Applied Software Maintenance files.
E050 – During an IPL on the file server, distributed file reconciliation failed on files other than Applied Software Maintenance files.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: This problem can be bypassed by altering the Exception Log in the acting file server.
1. Use the Distributed File Utility (DFU) on the acting file server to determine what file updates failed. These are indicated by entries in the Exception Log shown by the DFU.
2. Use DFU to force distribution and the entries are removed.

Note: For event E005 or E007, press **F1** to clear the W907 message and continue processing at this store controller.

Attention: The store controller is not a part of the MCF Network if the operator presses F1 when this message is displayed.

System action: Logged as B5/S020/E005, E007, E048, or E050 with unique data. See the B5 information beginning on page 221. If the operator presses F1, the event is logged as B5/S020/E003 or E013. See Message W908.

W908 W908 F1 OR F2 WAS PRESSED TO FORCE CONTROLLER B*x*/S*xxx*/E*xxx* ID=*xxxxxxxxxx*

Severity: 1

Explanation: The operator pressed F1 or F2 to force the store controller to continue processing.

Attention: Reconciliation continues but the TCC Network is active. Applications might read back-level data until reconciliation is complete.

The event (E*xxx*) in the message indicates the following:
E002 – The operator pressed F1 in response to message W906, E004.
E003 – The operator pressed F1 response to message W907, E005.
E008 – The operator pressed F1 in response to message W901.
E009 – The operator pressed F2 in response to message W902.
E010 – The operator pressed F1 in response to message W903.
E011 – The operator pressed F2 in response to message W904.
E012 – The operator pressed F1 in response to message W906, E006.
E013 – The operator pressed F1 in response to message W907, E007.
E016 – The operator pressed F1 in response to message W903.
E017 – The operator pressed F2 in response to message W904.
E073 – The operator pressed F1 in response to message W915.

System action: Logged as one of the following with unique data:
B5/S020/E002 and a valid ID.
B5/S020/E003 and a valid ID.
B5/S020/E008 and no valid ID.
B5/S020/E009 and no valid ID.
B5/S020/E010 and a valid ID.
B5/S020/E011 and a valid ID.
B5/S020/E012 and a valid ID.
B5/S020/E013 and a valid ID.
B5/S020/E016 and a valid ID.
B5/S020/E017 and a valid ID.
B5/S020/E073 and no valid ID.

See the B5 information beginning on page 221.

W909 W909 CONTROLLER NODE NAME WAS ENTERED B*x*/S*xxx*/E*xxx* ID=*xxxxxxxxxx*

Severity: 5

Explanation: The store controller node ID was entered. This message is logged in the System Log when you enter the store controller node ID for message W900.

System action: Logged as B5/S020/E066 with unique data. See the B5 information beginning on page 221.

W910 W910 SUCCESSFUL UPDATE FROM ACTING MASTER B*x*/S*xxx*/E*xxx* ID=*xxxxxxxxxx*

Severity: 5

Explanation: Distribute file reconciliation has completed successfully. If no files are reconciled, this message does not occur.

System action: Logged as B5/S020/E001 or E015 with unique data. See the B5 information beginning on page 221.

W911 W911 SUCCESSFUL UPDATE FROM ACTING FILE SERVER B*x*/S*xxx*/E*xxx* ID=*xxxxxxxxxx*

Severity: 5

Explanation: Distribute file reconciliation has completed successfully. If no files are reconciled, this message does not occur.

System action: Logged as B5/S020/E018, E020, or E042 with unique data. See the B5 information beginning on page 221.

W915 W915 'device driver'

Severity: 1

W915 ADX_SPGM:TRDLC.286

Explanation: This message occurs during the store controller IPL process to indicate the token-ring adapter cannot be opened. Message W957 might be logged indicating the reason for the token-ring adapter open failure. If the W957 message is not logged, then the shared RAM on the token-ring adapter is set to 8 instead of 16.

User response: Press **F1** to clear the W915 message and continue processing at the store controller. If a W957 message is logged, then use it to continue with problem determination.

If a W957 error is not logged, set the shared RAM on the token-ring adapter to 16.

The store controller must be re-IPLed when the problem indicated by message W957 has been corrected in order to have token-ring support.

W915 ADX_SPGM:ADXETH0L.286

W915 ADX_SPGM:ADXETHAL.286

W915 ADX_SPGM:ADXETHBL.286

W915 ADX_SPGM:ADXETHCL.286

W915 ADX_SPGM:ADXETHEL.286

W915 ADX_SPGM:ADXETHIL.286

W915 ADX_SPGM:ADXETHNL.286

W915 ADX_SPGM:VX_ETH0L.286

Explanation: This message occurs during the store controller IPL process to indicate that the Ethernet adapter cannot be opened. Message W965 is logged indicating the reason for the Ethernet adapter open failure.

User response: Press **F1** to clear the W915 message and continue processing at the store controller. See the logged W965 message to continue with problem determination.

The store controller must be re-IPLed when the problem indicated by message W965 has been corrected in order to have Ethernet support.

W915 ADX_SPGM:ADXETHLL.286

W915 ADX_SPGM:ADXETHXL.286

W915 ADX_SPGM:ADXTPCIL.286

W915 ADX_SPGM:TRXPORT.286

W915 ETHERTCP

W915 ETHER: ==>LCC:

W915 LLC: ==> TRXPORT:

W915 TRDLCTCP

W915 TRDLC: ==> TRXPORT:

Explanation: These messages occur during the store controller IPL process to indicate the device driver (named in the message) cannot initialize correctly because there is not enough system memory or resources available.

User response: Press **F1** to clear the W915 message and continue processing at the store controller. The store controller must be re-IPLed once the system memory or resource shortage has been corrected.

Notes:

1. The store controller does not have LAN support when any of the W915 messages are displayed. Therefore, the store controller is not a part of the LAN, does not support LAN terminals, and does not support TCP/IP or SNA communications over the LAN. However, the store controller status screen indicates the store controller is a LAN system.
2. When network cards are connected to intelligent routers, there could be instances when the routers take longer to complete their IPL than the 4690 store controllers. In these instances, it is not unusual for the store controller to stop its own IPL at W915 because the network adapter cannot be initialized. The reason that the network adapter cannot be initialized is because the router has not completed its own IPL. If the IPL has been stopped at W915 for a period of time, it might be useful to have the store controller reload itself. A logical file name, ADXW915I, can be created as a user logical file name to indicate that the store controller should attempt to reload again if W915 has been displayed for a period of time. The amount of time that the store controller waits to reload is controlled by the value in the ADXW915I logical file name. Valid values for the ADXW915I logical file are 5-3600 seconds. The value is read as the number of seconds to wait with W915 displayed on the screen before reloading the store controller.

System action: Message W908 is logged when F1 is pressed.

W916 W916 (Node Specifier)

Severity: 1

Explanation: The store controller IPL could not be completed because of a node name conflict on the LAN.

User response: Determine if the displayed node ID is correctly configured and if it is the correct ID for the store controller that failed to IPL.

- If the node ID is correct, check the node IDs of the other store controllers on the LAN to find the duplicate ID. Change the duplicate ID to a unique node ID.
- If the node ID is not correct, reset the ID. See message W900.

System action: No logging in the store controller.

W917 W917 CONTROLLER NOT CONFIGURED AS THE ACTING MASTER

Severity: 3

Explanation: The controller that logged this message has requested a reconciliation update from the acting master controller and the acting master controller has responded that this node is not configured.

Possible causes for this message:

- The controller logging this message was configured at the master controller and was IPLed without the master controller being IPLed.
- The controller logging this message was previously on a different LAN where the master controller had the same node ID as the master controller on the current LAN. This controller was then attached to the current LAN without configuring this node ID. The configured nodes are stored in \ADX_SPGM\ADXLNDAF.DAT on each controller.

System action: Logged as B5/S020/E036. See the B5 information beginning on page 221.

W918 W918 CONTROLLER NOT CONFIGURED AT THE ACTING FILE SERVER

Severity: 3

Explanation: The controller that logged this message has requested a reconciliation update from the acting file server and the acting file server has responded that this node is not configured.

Possible causes for this message:

- The controller logging this message was configured at the master controller and was IPLed without the file server controller being IPLed.
- The controller logging this message was previously on a different LAN where the file server had the same node ID as a file server controller on the current LAN. This controller was then attached to the current LAN without configuring this node ID. The configured nodes are stored in \ADX_SPGM\ADXLNDAF.DAT on each controller.

System action: Logged as B5/S020/E037. See the B5 information beginning on page 221.

W920 W920 EXTENDED PATH NAME EXCEEDS LIMIT

Severity: 3

Explanation: This request might have failed distribution because the fully-extended path name exceeds a 24-character limit. One cause of this condition is the use of nested subdirectories that are not supported by Data Distribution. (The function that the user requested will be completed on the local node, but might not be distributed by Distributed Data Architecture (DDA) to the other controllers.)

User response: Change the length of the subdirectory names or file name so that the length of the extended path name does not exceed 24 characters. The extended path name also includes the file name.

System action: Logged as B5/S020/E080 with unique data. See the B5 information beginning on page 221.

W921 W921 RECEIVED REQUEST FROM NON-CONFIGURED CONTROLLER

Severity: 3

Explanation: The controller that logged this message is either the acting master controller or acting file server controller and has received a request from a controller that is not configured.

Possible causes for this message:

- The node specified was configured at the master, and then re-IPLed without re-IPLing the master controller or file server controller.
- The specified controller was previously on a different LAN where the master controller or file server controller had the same node ID as a controller on the current LAN. The controller was then attached to the current LAN without configuring this node ID. The configured nodes are stored in \ADX_SPGM\ADXLNDAF.DAT on each controller.

System action: Logged as B5/S020/E034 or E035. See the B5 information beginning on page 221.

W929 W929 EXCEPTIONS HAVE BEEN REMOVED FROM THE LOG B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* FUNC=*xx*

Severity: 5

Explanation: Exception log entries have been removed from the exception log for either the master server or the file server. This informational message is displayed when a user activates a master server or file server and there are exception log entries for that node. Because the user cannot later deactivate if there are exception log entries, these entries are removed. For each exception log entry that is removed, a message is logged.

System action: Logged as B5/S020/E068 or E035. See the B5 information beginning on page 221.

W933 W933 PROBLEM ACCESSING DISKFILE TABLE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* FUNC=*xx*

Severity: 2

Explanation: The distribution of a file was stopped because of an error with an operating system table.

The event (E*xxx*) in the message indicates the following:

E023 – Unable to access the Diskfile Table during distribute on close processing. An entry can be added to the Exception Log. The file name determines whether or not system reconciliation updates the file at the next IPL.

E027 – Unable to access the Diskfile Table during CREATE_POS or CREATE_FILE processing. An entry can be added to the Exception Log. The file name determines whether or not system reconciliation updates the file at the next IPL.

E043 – Unable to access the Diskfile Table during system reconciliation. An Exception Log entry already exists so no new entry is created.

User response: Repeat the step that caused the problem.

If the problem persists, follow “Problem data collection procedure 1” on page 355.

Programmer response: This message indicates that there is an inconsistency between the Operating System and the Multiple Controller Feature file correction levels. Recover the indicated file (FN=*xxxxxxxxxxxx*) in the W933 message using the recovery procedure in the *IBM 4690 OS: Programming Guide*.

Note: If there was a read or write error, FN=*xxxxxxxxxxxx* could be meaningless. If this is the case, wait for more symptoms to occur.

System action: Logged as B5/S020/E023, E027, or E043 with unique data. See the B5 information beginning on page 221.

W934 W934 ERROR WRITING TO EXCEPTION LOG FILE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* FUNC=*xx*

Severity: 2

Explanation: A write error occurred when the system attempted to add or modify an entry in the Exception Log Entry (ELE) file. A possible cause for this message is bad sectors on the disk.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Verify that the device on which the file exists is ready.
Recover the indicated file (FN=*xxxxxxxxxxxx*) in the W934 message using the recovery procedure in the *IBM 4690 OS: Programming Guide*.

Note: If there was a read or write error, FN=*xxxxxxxxxxxx* can be meaningless. If this is the case, wait for more symptoms to occur.

Attention: The file specified in this W934 message can be back level on the subordinate store controllers.

System action: Logged as B5/S020/E029 with unique data. See the B5 information beginning on page 221.

W935 W935 EXCEPTION LOG FILE IS FULL B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* FUNC=*xx*

Severity: 2

Explanation: During the distribution of a file, there was an attempt to log an exception in the Exception Log Entry (ELE) file and no room was available.

This problem can occur because the store application program was installed or configuration was run when one or more of the configured LAN store controllers were not active on the LAN. This message is logged if there are files to be distributed that are not logically defined.

User response: IPL all store controllers on the LAN to force distributed file reconciliation.

If the problem persists, follow “Problem data collection procedure 1” on page 355.

Programmer response: The size of this file is determined by the operating system at IPL and it cannot be changed.

System action: Logged as B5/S020/E030 with unique data. See the B5 information beginning on page 221.

W936 W936 ERROR READING EXCEPTION LOG FILE B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx* FUNC=*xx*

Severity: 2

Explanation: During the data distribution initialization phase, an error occurred when the Exception Log Entry (ELE) file was read into storage. Possible causes for this message are the file might not exist or there might be bad sectors on the disk.

User response: Because this error occurred during the IPL procedure, IPL the store controller again.
If the problem persists, follow “Problem data collection procedure 1” on page 355.

Programmer response:

1. Verify that the .ELE file exists on the specified device. These are ADX_SDT1:ADXLND?F.DAT files as shown in the *IBM 4690 OS: Programming Guide* Verify that the ELE file exists on the specified device.
2. Verify that the device on which the file exists is ready.
3. Recover the indicated file (FN=*xxxxxxxxxxxx*) in the W936 message using the recovery procedure in the *IBM 4690 OS: Programming Guide*.

   Note: If there was a read or write error, FN=*xxxxxxxxxxxx* can be meaningless. If this is the case, wait for more symptoms to occur.

Attention: The file specified in this W936 message can be back-level on the subordinate store controllers.

System action: Logged as B5/S020/E031 with unique data. See the B5 information beginning on page 221.

W937 W937 REMOTE FILE NUMBER TABLE IS FULL B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxxx* RC=*xxxxxxxx*

Severity: 1

Explanation: During the distribution of a file, there was an attempt to log a Remote File Number entry and no room was available. This condition can occur when too many application programs are running at the same time.

User response: Follow “Problem resolution procedure” on page 358.

Programmer response: If a significant number of applications are stopped and the problem persists, report this

message to the IBM Support Center for software assistance.

System action: Logged as B5/S020/E032 with unique data. See the B5 information beginning on page 221.

W940 W940 DISTRIBUTE-AT-CLOSE FILES NOT RECONCILED B*x*/S*xxx*/E*xxx* ID=*xxxxxxxx*

Severity: 5

Explanation: Exception log entries for distribute at close files were found for the requesting node. One or more of these files were open in write mode on the acting file server or acting master store controller. These exception log entries were not reported to the node indicated in the message and the entries were not reconciled. Refer to the *IBM 4690 OS: User's Guide* for more information about Distribution Exception Logs.

Note: One or more files on the subordinate store controllers can be back level from the files on the acting file server or the acting master store controller.

User response: This selection process gives you more control over when distribute at close files are distributed. You can wait for the applications to close the files, which removes the exception log entries if distribution is successful. Or, you can stop the applications that have the files open, which closes the files and begin distribution.

Programmer response: Perform a TCLOSE or CLOSE operation on the files that are open in write mode. If distribution is successful, the entries are removed from the exception log. Refer to the *IBM 4690 OS: Programming Guide* for information on Closing Application Data Files.

System action: Logged as B5/S020/E081 with unique data. See the B5 information beginning on page 221.

W942 W942 UNABLE TO SUCCESSFULLY COMPLETE RECONCILIATION B*x*/S*xxx*/E*xxx* ID=*xxxxxxxxxx* RC=*xxxxxxxx* FUNC=*xx*

Severity: 1

Explanation: An error occurred while reconciling the distributed files on the store controller indicated in the message. This message appears on the acting file server or the acting master store controller.

Note: One or more files on the subordinate store controllers can be back level from the files on the acting file server or the acting master store controller.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: This problem can be bypassed by altering the Exception Log in the acting master store controller or the acting file server.

1. Use the Distributed File Utility (DFU) to determine what file updates failed. The failed file update are indicated by entries in the Exception Log shown by the DFU.
2. After altering the Exception Log, IPL the store controller that received the message. This action starts file distribution again.

System action: Logged as B5/S020/E046 with unique data. See the B5 information beginning on page 221.

W944 W944 RECONCILIATION REQUEST WAS NOT VALID B*x*/S*xxx*/E*xxx* FN=*xxxxxxxxxxx*

Severity: 2

Explanation: During system reconciliation, a request was encountered that was not a request to delete, rename, or update. The entry is removed from the Exception Log by the system.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: The system has corrected itself. Report this problem to your IBM Support Center.

System action: Logged as B5/S020/E033 or E052 with unique data. See the B5 information beginning on page 221.

W945 **W945 NEW CONTROLLER *xx* ON LAN SYSTEM B*x*/S*xxx*/E*xxx* ID=*xxxxxxxxxx***

Severity: 1

Explanation: A new store controller has started to communicate with this store controller.

System action: Logged as B5/S020/E054 with unique data. See the B5 information beginning on page 221.

W946 **W946 CONNECTION TABLE IS FULL B*x*/S*xxx*/E*xxx* ID=*xxxxxxxxxx***

Severity: 2

Explanation: A new store controller has started to communicate with this store controller. In doing so, it has exceeded the maximum number of controllers the system can support on the LAN.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Call the IBM Support Center for software assistance and provide the above information.

System action: Logged as B5/S020/E055 with unique data. See the B5 information beginning on page 221.

W947 **W947 CONTROLLER *xx* HAS LEFT LAN SYSTEM B*x*/S*xxx*/E*xxx* ID=*xxxxxxxxxx***

Severity: 1

Explanation: A store controller that was communicating with this store controller has stopped, for example, because of an IPL. This message can be temporary. The store controller specified in the message can return to the LAN without operator intervention. Message W945 displays when the controller returns.

User response: Check the system messages at all store controllers on the LAN.

Note: If the master store controller or file server store controller is the one that has left the LAN, see the LAN system information in the *IBM 4690 OS: Programming Guide*.

If three or more store controllers are on the LAN and one of the controllers indicates that *all controllers* other than itself have left the LAN, the store controller with this indication is probably *not* on the LAN.

1. Check the cable connections on this store controller.
2. If no problem is found and corrected, continue problem determination using the service documentation for your IBM Token-Ring Adapter or your Ethernet adapter.

System action: Logged as B5/S020/E056 with unique data. See the B5 information beginning on page 221.

W948 **W948 ENTRIES IN MASTER LAN EXCEPTION LOG B*x*/S*xxx*/E*xxx***

Severity: 1

Explanation: This message indicates that there is at least one entry in the master store controller LAN Distribution Exception Log.

This message is issued when the first distribution exception occurs after the IPL of the master store controller. It might also be issued when the first distribution exception occurs after the removal of entries by the Distributed File utility (DFU).

The Exception Log is searched 20 seconds after the master store controller IPL. If at least one entry is found in the log, this message is issued. Active exception logging is not required for this message to be issued.

User response: When this message is issued, it indicates that there was a problem with the distribution of a file. A common cause for this message is that at least one store controller is not connected to the LAN or is powered Off.

- If this message is expected, no operator intervention is required.
- If this message is not expected, steps should be taken to determine which store controller is not connected and reconnect it.

Programmer response: To determine if additional operator intervention is required, use the DFU to look at the error codes and node IDs in the master store controller LAN Distribution Exception Log.

- If the LAN Distribution Exception Log is empty, this information indicates that file synchronization has occurred and the log has been cleared as a result. No operator intervention is required.

- If the LAN Distribution Exception Log is not empty, IPL the node ID in question. This action allows file synchronization to occur.
  If you do not think the entry is resolved, use the Distributed File utility to delete the entry from the Exception Log. This action can result in back level files on alternate or subordinate store controllers.

System action: Logged as B5/S020/E076. See the B5 information beginning on page 221.

W949 W949 ENTRIES IN FILE SERVER LAN EXCEPTION LOG B*x*/S*xxx*/E*xxx*

Severity: 1

Explanation: This message indicates that there is at least one entry in the file server Distribution Exception Log.

This message is issued when the first distribution exception occurs after the IPL of the file server. It might also be issued when the first distribution exception occurs after the removal of entries by the Distributed File Utility (DFU).

The exception log is searched 20 seconds after the file server IPL. If at least one entry is found in the log, this message is issued. Active exception logging is not required for this message to be issued.

User response: When this message is issued, it indicates that there was a problem with the distribution of a file. A common cause for this message is that at least one store controller is not connected to the LAN or is powered Off.
- If this mesage is expected, no operator intervention is required.
- If this message is not expected, steps should be taken to determine which store controller is not connected and reconnect it.

Programmer response: To determine if additional operator intervention is required, use the DFU to look at the error codes and node IDs in the file server LAN Distribution Exception Log.
- If the LAN Distribution Exception Log is empty, this information indicates that file synchronization has occurred and the log has been cleared as a result. No operator intervention is required.
- If the LAN Distribution Exception Log is not empty, IPL the node ID in question. This action allows file synchronization to occur.
  If you do not think the entry is resolved, use the DFU to delete the entry from the Exception Log.

  Note: This action can result in back level files on alternate or subordinate store controllers.

System action: Logged as B5/S020/E077. See the B5 information beginning on page 221.

W950 W950 NODE WAS PHYSICALLY REMOVED FROM THE NETWORK B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The token-ring or Ethernet adapter has detected an open or short condition in the cable that connects the adapter to the MAU for token ring or hub for Ethernet. The adapter has been closed.

User response: Check the adapter cable connected to the multistation access unit (MAU) or hub.
If no problem is found and corrected, continue problem determination using the service documentation for the token-ring or Ethernet adapter.

System action: Logged as B5/S021/E001 with unique data for token ring adapter. Logged as B5/S025/E001 with unique data for Ethernet adapter. See the B5 information beginning on page 221.

W951 W951 NODE WAS PHYSICALLY RECONNECTED TO THE NETWORK B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The token-ring or Ethernet adapter has successfully re-opened after recovering from an open or short condition in the cable that connects the adapter to the multistation access unit (MAU) for token ring or hub for Ethernet.

System action: Logged as B5/S021/E002 for token ring. Logged as B5/S025/E002 for Ethernet. See the B5 information beginning on page 221.

W952 W952 TOKEN-RING ADAPTER HARDWARE ERROR B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The token-ring adapter has detected an unrecoverable error. The adapter has been closed or it is failing.

User response: Continue problem determination using the service documentation for the token-ring adapter.

System action: Logged as B1/S021/E003 or E005 with unique data. See the B1 information beginning on page 198.

W953 W953 UNEXPECTED CONTROL MESSAGE RECEIVED OVER THE LAN B*x*/S*xxx*/E*xxx*

Severity: 4

Explanation: The store controller has received an unrecognizable message on the LAN (token ring or Ethernet).

User response: Follow “Problem data collection procedure 9” on page 357.

Programmer response: Call the IBM Support Center for software assistance.

System action: Logged as B5/S021/E004 with unique data for token-ring. Logged as B5/S025/E004 with unique data for Ethernet. See the B5 information beginning on page 221.

W955 W955 NO ENTRIES IN MASTER LAN EXCEPTION LOG B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: This message indicates there are no entries in the master store controller LAN Distribution Exception Log. The master store controller considers all files synchronized.

This message is issued when the last distribution exception is removed from the master store controller LAN distribution Exception Log. Distribution exceptions are removed following reconciliation, or by users who delete the entries by using the Distributed File Utility (DFU).

The Exception Log is searched 20 seconds after the master store controller IPL. If no entries are found, this message is issued.

System action: Logged as B5/S020/E078. See the B5 information beginning on page 221.

W956 W956 NO ENTRIES IN FILE SERVER LAN EXCEPTION LOG B*x*/S*xxx*/E*xxx*

Severity: 3

Explanation: This message indicates there are no entries in the file server store controller LAN Distribution Exception Log. The file server store controller considers all files synchronized.

This message is issued when the last distribution exception is removed from the file server store controller Distribution Exception Log. Distribution exceptions are removed following reconciliation, or by users who delete the entries by using the Distributed File Utility (DFU).

The Exception Log is searched 20 seconds after the file server store controller IPL. If no entries are found, this message is issued.

System action: Logged as B5/S020/E079. See the B5 information beginning on page 221.

W957 W957 TOKEN RING ADAPTER OPEN FAILURE B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The token-ring adapter could not be opened.

The event (E*xxx*) in the message indicates the following:

E006 – The token-ring adapter has detected an open or short condition in the cable that connects the adapter to the multistation access unit (MAU).

E007 – The adapter has tried to connect to a token ring that is operating at a different data rate.

E008 – The adapter has detected that another station on the token ring has an adapter address equal to its own.

E009 – An error condition has occurred that might indicate an adapter or token-ring hardware error.

User response: Choose one of the following based on the event (E*xxx*) that is displayed. If the indicated actions do not correct the problem, continue problem determination using the service documentation for the token-ring adapter.

E006 – Check the cable connected to the token-ring adapter and MAU. Verify that the cable is connected properly at the adapter and MAU.

E007 – Using the diagnostic Reference Diskette for the store controller returning this error, ensure the data rate for the token-ring adapter matches that of the other token-ring adapters on the ring. Verify that all adapters on the LAN are set to either a data rate of 4 Mbps or 16 Mbps.

E008 – Change the adapter address so that it is different from other adapters on the token ring. This error occurs only if the adapter address has been changed by the user.

E009 – Continue problem determination using the service documentation for the token-ring adapter.

System action: Logged as B5/S021/E006, E007, E008, E009 with unique data. See the B5 information beginning on page 221.

W958 W958 TOKEN RING LOBE FAULT

Severity: 2

Explanation: The token-ring cable from this store controller is not plugged into the MAU.

User response: Plug the token-ring cable into the MAU.

System action: The system retries in approximately 30 seconds. Logged as B5/S021/E009. See the B5 information beginning on page 221.

W959 W959 TOKEN RING BEACONING B*x*/S*xxx*/E*xxx*

Severity: 2

Explanation: The token-ring adapter has detected beacon frames on the token-ring. No data can be sent or received while the ring is beaconing.

System action: Logged as B5/S021/E001 with unique data. See the B5 information beginning on page 221.

W964 W964 TOKEN RING RECOVERED FROM BEACON CONDITION

Severity: 2

Explanation: The token ring has recovered from a previously reported beaconing condition and is functioning normally.

User response: None

System action: Logged as B5/S021/E011. See the B5 information beginning on page 221.

W965 W965 ETHERNET LAN INITIALIZATION FAILURE *B4/S025/Exxx*

Severity: 2

Explanation: This message is logged by the Ethernet driver when it detects an initialization problem. Specific events uniquely identify the nature of the failure.

The event (E*001* through *006)* in the message indicates the following:

E001 – An Ethernet adapter is not present in the store controller.

User response: Ensure that an IBM-supported Ethernet adapter is installed in the store controller and restart the operation system.

E002 – Ethernet adapter hardware contains illegal Input/Output address value.

User response: The Ethernet adapter might be defective. Replace the adapter and restart the operation system.

E003 – Controller resources are unavailable for the Ethernet driver internal device structure. The Ethernet device driver is malfunctioning.

User response: Follow “Problem data collection procedure 1” on page 355.

E004 – Controller resources are unavailable for Ethernet.

User response: Ensure that sufficient memory is installed in the store controller, then restart the operating system. If the problem persists, follow “Problem data collection procedure 1” on page 355.

E005 – Maximum units of the Ethernet driver are already installed.

User response: Follow “Problem data collection procedure 1” on page 355.

E006 – Controller memory unavailable for Ethernet packet tracing.

User response: The tracing facility within the Ethernet driver is not available, however, the driver should operate correctly provided no other error is logged. If you attempt to start an Ethernet LAN trace, no trace data is recorded.

W970 W970 SYSTEM PD INFO = *aaaa,bbbb,cccc,dddd,* **B***x***/S***xxx***/E***xxx eeee,ffff, gggg*

Severity: Variable

Explanation: A LAN event has occurred and the event has been recorded in the System Log. An example of a LAN event is a LAN software connection that has been terminated.

The event (E*xxx*) in the message indicates the following:

E001 – Logging requests for the Local Area Network were made faster than they could be written to the hard disk drive. No more log requests are made until the pending requests are logged and a 60 second delay has elapsed.

The information in the W970 message fields aaaa through gggg for E001 is described below.

aaaa Number of network log requests that have been written to the hard disk drive since the last IPL or since the last time this event occurred

bbbb through gggg
No meaning for this event

E002 – Logging requests can now be written to the hard disk drive.

The information in the W970 message fields aaaa through gggg for E002 is described below.

aaaa Number of network log requests that have been written to the hard disk drive since the last IPL or since the last time this event occurred.

bbbb through gggg
No meaning for this event

E003 – The Local Area Network attempted to make a log request with an event number that is not in the currently defined range. This internal software problem should affect this log request only. If the problem persists, report this message to the IBM Support Center for software assistance.

E015 – A storage buffer was not available when a message reply was received. The message reply is queued until a storage buffer is available.

E050 – A storage buffer was not available when a message request was received. The message request is queued until a storage buffer is available.

E051 – A storage buffer was not available to prepare a reply message. An error reply was sent and the application received a ‘No Resource’ return code.

E057 – Acknowledgment was received before the message was returned by the transport driver (token-ring). This event number does not indicate an error situation.

The information in the W970 message fields aaaa through gggg for E015, E050, E051, or E057 is described below.

aaaa and bbbb
Count of occurrences of the event at this store controller

cccc through gggg
No meaning for this event

E052, E053, E054, E055, E056, or E061 – A message that was sent again was discarded. This does not indicate an error condition.

The information in the W970 message fields aaaa through gggg for E052, E053, E054, E055, E056, or E061 is described below.

aaaa Count of occurrences of the event at this store controller
bbbb Message operating code
cccc Message sequence number
dddd Connection number
eeee Message state
ffff Message block count
gggg No meaning for this event

E058 or E059 – A new message was received before the previous message was acknowledged. This event number does not indicate an error situation and can occur when an acknowledgment is lost.

The information in the W970 message fields aaaa through gggg for E058 or E059 is described below.

aaaa Count of occurrences of the event at this store controller
bbbb Message operating code
cccc Message sequence number
dddd Previous message sequence number
eeee Previous message state
ffff and gggg
No meaning for this event
E060 – Message status was requested and the store controllers are not in agreement on the message conditions. This event number causes a W971 B4/S022/E012 message on the other store controller.

The information in the W971 message fields aaaa through gggg for E060 is described below.
aaaa Message sequence number on the other store controller
bbbb Message sequence number on this store controller
cccc Message state
dddd Message operating code
eeee through gggg
No meaning for this event

System action: Logged as B4/S022/E001, E002, E003, E007, E015, E050, E051, E052, E053, E054, E055, E056, E057, E058, E059, E060, or E061. See the B4 information beginning on page 208.

W971 W971 SYSTEM PD INFO = *aaaa,bbbb,cccc,dddd,* **B***x***/S***xxx***/E***xxx eeee,fff f,* **RN =** *xx*

Severity: Variable

Explanation: A LAN event has occurred and the event has been recorded in the System Log. An example of a LAN event is a LAN software connection that has been terminated.

The event (E*xxx*) in the message indicates the following:
E010 – The LAN timed out for a message acknowledgment. The acknowledgment is sent again.
E011 – The LAN timed out for a message. The message is sent again.
E012 or E013 – The LAN timed out and the store controllers are not in agreement on message conditions. The LAN software connection has been terminated and an attempt to restore it is made.
E014 – The LAN timed out and the store controllers are in agreement on message status. Another LAN timeout waits for the message to occur again. During periods of heavy system usage, this event number does not necessarily indicate that an error has occurred.

The information in the W971 message fields, aaaa through ffff and RN for E010, E011, E012, E013 or E014 is described below.
aaaa Count of occurrences of the event at this store controller
bbbb Message operating code
cccc Message status
dddd Message state
eeee Message sequence number
ffff File number when valid
RN Node ID that did not receive the message
E016 – A Local Area Network echo message was not answered by another store controller. The LAN software connection has been terminated and an attempt to restore it is made.

The information in the W971 message fields, aaaa through ffff and RN for E016 is described below.
aaaa Count of occurrences of the event at this store controller
bbbb Connection number
cccc Connection state
dddd Connection flags
eeee and ffff
No meaning for this event
RN Node ID that did not answer the echo
E062 – A Local Area Network echo message was not sent by another store controller. The connection has been terminated and an attempt is made to restore it.

The information in the W971 message fields, aaaa through ffff and RN for E062 is described below.

aaaa Count of occurrences of the event at this store controller

bbbb Connection number

cccc Connection state

dddd Connection flags

eeee and ffff
No meaning for this event

RN Node ID that did not send an echo

User response:

- If B4/S022/E014 occurs repeatedly with the same *eeee* and *RN* values when you are in a suspend condition, then there is a problem with the node ID of a store controller. The appropriate recovery action is to dump the affected store controller.
- Any other pattern of occurrence of B4/S022/E014 does not indicate an error condition and might be ignored. If the message is occurring frequently, change your configuration to make the first timeout value longer. Increase this value in increments of 10 seconds until you reduce the frequency of occurrence of this message.

System action: Logged as B4/S022/E010, E011, E012, E013, E014, E016, or E062. See the B4 information beginning on page 208.

W972 W972 SYSTEM ATTEMPTING TO RE-IPL CONTROLLER xx B*x*/S*xxx*/E*xxx*

Severity: 1

Explanation: A LAN operation has not completed within the LAN action interval and the system is configured to automatically re-IPL the controller causing the problem. The *xx* in the message is the controller ID of the controller that is re-IPLed. Controller Storage for controller *xx* is dumped prior to the re-IPL.

User response: If controller *xx* does not start to dump and re-IPL within 30 seconds, take the following actions to re-IPL controller *xx*:

1. Perform the following on the keyboard for controller *xx*. If the keyboard can be used to select “Store Control Functions”, then select CONTROLLER FUNCTIONS and DUMPING STORE CONTROLLER STORAGE. If the keyboard is not usable:
   a. If a Controller Storage Dump is needed to report this problem, use the dump switch in store controller *xx*. If the controller does not dump and re-IPL, then go to step 2.
   b. If a Controller Storage Dump is not required, then go to step 2.
2. On the keyboard for controller *xx*, re-IPL the controller by pressing **CTRL-ALT-DEL**. If this action does not re-IPL controller *xx*, perform the next step.
3. Power Off the controller *xx*, wait for about 10 seconds, and power On controller *xx*.

Programmer response: Review the Problem Data Collection Form, the System Log, and the formatted dump data created with “Creating a problem analysis diskette or data file” on page 368.

If the W972 message occurred because of heavy system usage, an operation of long duration, or other unusual circumstances, modify the application or the procedures to eliminate this situation.

If the W972 message occurred because of a system hang, call the IBM Support Center for software assistance.

System action: Logged as B4/S022/E018. See the B4 information beginning on page 208.

W973 W973 OPERATOR ACTION NEEDED - RE-IPL CONTROLLER xx B*x*/S*xxx*/E*xxx*

Severity: 1

Explanation: A LAN operation has not completed within the LAN action interval and the system is configured to recommend a re-IPL of the controller causing the problem. The *xx* in the message is the ID of the controller to re-IPL.

User response:

1. Perform the following actions on the keyboard for controller *xx*.
   - If the keyboard can be used to select “Store Control Functions”, then select CONTROLLER FUNCTIONS AND DUMPING STORE CONTROLLER STORAGE.
   - If the keyboard is not usable:
     – If a Controller Storage Dump is required to report this problem, use the dump switch in store controller *xx*. If the controller does not dump and re-IPL, then go to step 2.
     – If a Controller Storage Dump is not required, then go to step 2.

2. On the keyboard for controller *xx*, re-IPL the controller by pressing **CTRL-ALT-DEL**. If this does not re-IPL controller *xx*, perform the next step.
3. Power Off controller *xx*, wait for about 10 seconds, and power On controller *xx*.

Programmer response: Review the Problem Data Collection Form, the System Log, and the formatted dump data created with "Creating a problem analysis diskette or data file" on page 368.

- If the W973 message occurred because of heavy system usage, an operation of long duration, or other unusual circumstances, modify the application or the procedures to eliminate this situation.
- If the W973 message occurred because of a system hang, call the IBM Support Center for software assistance.

System action: Logged as B4/S022/E019. See the B4 information beginning on page 208.

W976 W976 LAN TIMEOUT EVENT HAS OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: A LAN timeout event has occurred.

The event (E*xxx*) in the message indicates the following:

E004 – LAN timeout occurred while trying to establish a LAN software connection between two store controllers. Another attempt to establish the connection will be made.

E006 – LAN timeout occurred while waiting for confirmation that a message was sent. The LAN software connection has been terminated and an attempt to restore the connection will be made.

E008 – LAN timeout occurred while waiting for the internal processing of messages. The LAN software connection has been terminated and an attempt to restore the connection will be made.

User response: Take action based on the event logged.

System action: Logged as B4/S022/E004, E006, or E008. See the B4 information beginning on page 208.

W977 W977 LAN EVENT HAS OCCURRED B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Severity: Variable

Explanation: A LAN event has occurred. An Operation in Progress (OIP) is not available to send a status message. The LAN software connection has terminated, and an attempt is made to restore it.

User response: If this error keeps occurring, initiate a store controller dump on the store controller logging the message.

System action: Logged as B4/S022/E009. See the B4 information beginning on page 208.

W978 W978 TCPIP APPLICATION EXPERIENCED UNEXPECTED FAILURE B*4*/S019/E*xxx* RC=*xxxxxxxx* CALL=*xxxx* INFO=*xxxxxxxxxxxx*

Explanation: This message indicates that the 4690 TCP/IP application experienced a non-recoverable error before exiting.

System action: Logged as B4/S019/E*xxx* with unique data. See "B4 - Store Controller Events" on page 208.

Note: The following table describes DHCP return codes for W978 and W980 message chart (event code E200, call=0402, info=DHCP NO IP).

Table 7. DHCP return codes

Return code	Explanation
80010000	Memory allocation error in DHCP server
80020000	The DHCP server has no IP addresses available for assignment. All IP addresses in the configured address pool have been assigned by the DHCP server or are in use, such as assigned by another DHCP server or statically assigned.
80030000	The DHCP server is not configured to manage this subnet.
80040000	Internal software error with DHCP address record management
80050000	Internal software error with DHCP client record management

Table 7. DHCP return codes (continued)

Return code	Explanation
80060000	Reserved client address is in use.
80070000	Internal software error with reserved client record.
80080000	The DHCP server has no IP addresses available for assignment on the requested subnet.

The DHCP server logs messages W978 and W980 to aid in problem resolution. This error message will be unique to your circumstances. See Table 8 on page 178 for the interpretation of the unique data.

Table 8. DHCP server error message unique data for W978 and W980. Event number = E200 (indicates that the DHCP server logged the message).

Call	Info	RC	Description
02xx	DHCP INIT		The DHCP server could not initialize due to TCP/IP socket errors. Ensure that TCP/IP is configured and running on your controller. This message could also occur if you attempt to start the DHCP server when it is already running.
0301	*config file name*		The DHCP server could not open the DHCP server configuration file.
0402	DHCP NO IP	Refer to Table 7 on page 177 for a list of return codes and explanations.	The DHCP Server is unable to assign an IP address. The RC field provides more information on the cause of the error.
0403 / 0404	DHCP INIT		The DHCP server could not initialize due to errors in the DHCP server configuration. Review the ADXIP*xx*D.DAT file (where *xx* is the controller node ID) for possible errors. A common problem is that the address range specified on the subnet statement is outside the scope of the subnet.
0405	*hostname*	*IP address in hexadecimal format*	The DHCP server could not update the HOSTS file with the hostname and IP address. Most likely this is a result of no acting master.

W979 **W979 TCPIP APPLICATION DETECTED USER ERROR B4/S019/E*xxx* RC=*xxxxxxxx* CALL=*xxxx* INFO=*xxxxxxxxxxxx***

Explanation: This message indicates that the 4690 TCP/IP application detected a user error. The application might or might not continue.

System action: Logged as B4/S019/E*xxx* with unique data. See the B4 information beginning on page 208.

W980 **W980 TCPIP APPLICATION CONTINUES WITH ERROR B4/S019/E*ddd* RC=*rrrrrrrr* CALL=*bbcc* INFO=*sssssssssss***

Explanation:

Note: This error message will be unique to your circumstances. Refer to the *IBM 4690 OS: Messages Guide* and *IBM 4690 OS: Communications Programming Reference* for detailed DHCP troubleshooting charts to find more information about your unique message.

This message indicates that the 4690 TCP/IP application detected a non-fatal system error. The application continues.
E*ddd* – *ddd* is the decimal value of an 8-bit binary number, *ppppeeee*
pppp is the program number of the 4690 TCP/IP application that logged this message.
eeee is the event number.

RC=*rrrrrrrr* – *rrrrrrrr* is a 32-bit number in hex. This return code could be the return code of a function call that failed.
CALL=*bbcc* – *bbcc* is a 16-bit number in hex. The upper 8-bits identifies the type of function call and the lower 8-bits identifies the specific function call.
INFO=*ssssssssssss* – *ssssssssssss* is any additional information that does not have fixed format.

System action: Logged as B4/S019/E*ddd* with unique data. See the B4 information beginning on page 208.

The DHCP server logs messages W978 and W980 to aid in problem resolution. This error message will be unique to your circumstances. Refer to Table 8 on page 178 for the interpretation of the unique data. The DHCP server logs messages W978 and W980 to aid in problem resolution.

W981 W981 MULTIPLE ADAPTEC SCSI CARDS INSTALLED

Severity: 1

Explanation: The 4690 loader detected the presence of more than one Adaptec SCSI adapter card. Multiple adapters are not supported. Only a single-adapter configuration is supported.

User response: Remove the extra adapter(s).

System action: The system hangs.

W982 W982 LONG FILENAME SERVER FAILURE B5/S024/E*xxx*

Severity: 1

Explanation: This message indicates that the VFS server failed to be activated or deactivated at the OCF request to activate or deactivate the master or alternate master controller.

The event (E*xxx*) in the message indicates the following:
E034 – There was a failure to activate the VFS server when there was an OCF request to activate the master controller.
E035 – There was a failure to deactivate the VFS server when there was an OCF request to deactivate the master controller.

System action: Logged as B5/S024/E*xxx* with unique data. See the B5 information beginning on page 221.

W983 W983 READ ADXNLCPF.DAT ERROR

Severity: 2

Explanation: Cannot find ADXNLCPF.DAT or reading error at the controller.

User response: Ensure the controller has the ADXNLCPF.DAT file.

System action: Logged as B5/S022/E002 without unique data.

W984 W984 NO VFS DRIVES ARE OPERATIONAL - VSF SERVER ENDING B5/S253/E*xxx* SEE PREVIOUS MESSAGES FOR DETAIL

Severity: 2

Explanation: The 4690 Virtual File System (VFS) Server has terminated because all of the configured VFS drives have ceased to be operational. At least one drive must have been configured at IPL time to receive this message.

User response: See the previous VFS-oriented messages to determine why individual drives are not operational.

System action: Logged as B5/S253/E*xxx*. The system continues operation. All functions that are not dependent on the VFS can continue normally. On the next IPL, the VFS again attempts to operate any drives that are configured at that time. See the B5 information beginning on 221.

W985 **W985 VFS DRIVE WILL NOT BE AVAILABLE DUE TO INIT FAILURE B5/S253/E*xxx* VFS DRIVE=*x***

Severity: 2

Explanation: One Virtual File System (VFS) Drive has failed to initialize properly.

E002 If the message is logged by a controller/terminal against the enhanced RAM disk, change the systems configuration so that it uses the controller's enhanced RAM disk instead of the terminal's enhanced RAM disk.

User response: There might be previous messages that give more detail about the cause of failure. See whether there are previous messages concerning this VFS drive to determine why it failed to initialize.

System action: Logged as B5/S253/E*xxx*. The system continues operation. The specified drive is not available until the next IPL. If other drives initialized properly, they continue to be available. On the next IPL, the VFS again attempts to operate any drives that are configured at that time. See the B5 information beginning on 221.

W986 **W986 VFS SERVER FAILED TO OPEN/CREATE CONTROL FILE B5/S253/E*xxx* VFS DRIVE=*x* RC=*xxxxxxxx***

Severity: Various

Explanation: The 4690 Virtual File System (VFS) Server has failed to access a necessary control file. It might have failed to Open an existing file or failed to Create a new file, or both.

User response: Check the "Scan System Log Data" function ("System Events") to determine the Filename and the formatted Return Code, as indicators toward problem resolution.

System action: Logged as B5/S253/E*xxx*. Continued availability of any or all VFS drives depends on which control file could not be accessed. Succeeding VFS-oriented messages, such as W985 or W984, are logged if VFS drives are unavailable. See “B5 - System Events” on page 221 for the B5 information.

W987 **W987 CLIENT SESSION SERVER EVENT B*x*/S/*xxx*/E*xxx* FN=*xxxxxxxx* RC=*xxxxxxxxxxxx***

Severity: 2

Explanation: An error occurred while installing CSS. The event (E*xxx*) in the message indicates the following:

E002 The CSS R: Driver failed to install.

E003 The CSS Java Redirection Driver failed to install or open

E004 The Java Invocation unit of the CSS Java Redirection Driver failed to install

E005 A Device unit of the CSS Java Redirection Driver failed to install

E007 Bad contents in CSS config file.

User response: For E007 check *SI User Guide* for help.

For E002 and E003, check for the named driver file in C:\ADX_SPGM, and/or check the RC.

For the other events, call Support.

System action: Logged as B5/S254/E002, E003, E004, E005, E007.

```
FN={ADXTSR0L.286}
   {ADXSRV1L.286}
   {BASXJTSS}
   {ADXAExxF.DAT}
xx=Controller ID
```

W988 **W988 PXE TERMINAL DUMP RECEIVED B5/S032/E100 TERM NUM =*xxx***

Severity: 3

Explanation: This is an information message indicating the controller that the PXE terminal dump resides in.

System action: Logged as B5/S032/E100. See “B5 - System Events” on page 221 for the B5 information.

W989 **W989 PROGRAM *xxxxxxxx* HAS ENDED B*x*/S*xxx*/E*xxx* REASON=*x* Oper_ID=*xxx***

Severity: 5

Explanation: The application indicated by the message has ended normally. The application had been started at the command line by operator *xxx*.

System action: Logged as B5/S024/E008 with unique data. See the B5 information beginning on page 221.

W990 **W990 PROGRAM ADXCSJ0L HAS OPENED *xxxxxxxxxxxx* FILE B*x*/S*xxx*/E*xxx* Oper_ID=*xxx***

Severity: 3

Explanation: The ADXCSJ0L application opened the *xxxxxxxxxxxx* file.

The event (E***xxx***) in the message indicates the following:
E177 – A file was opened because the operator started the ADXCSJ0L application.

User response: This message is for information only. No user response is required.

System action: Logged as B5/S*xxx*/E177 with unique data, where S*xxx* can be:
S044 – Display/alter Utility

See the B5 information beginning on page 221.

W991 **W991 PROGRAM ADXCSJ0L HAS UPDATED xxx FILE B*x*/S*xxx*/E*xxx* Oper_ID=*xxx***

Severity: 3

Explanation: The ADXCSJ0L application updated the *xxx* file. The application had been started by operator *xxx*.

User response: This message is for information only. No user response is required.

System action: Logged as B5/S*xxx*/E177 with unique data, where S*xxx* can be:
S044 – Display/alter Utility

See the B5 information beginning on page 221.

W992 **W992 PROGRAM *xxxxxxxx* WAS STARTED B*x*/S*xxx*/E*xxx* TYPE=*x* Oper_ID=*xxx***

Severity: 5

Explanation: The application indicated by the message has been started.

System action: Logged as B5/S024/E007 with unique data. See the B5 information beginning on page 221.

W993 **W993 ENHANCED PASSWORD DRIVER EVENT B5/S248/E*xxx***

Severity: 2

Explanation: The attempted password driver operation cannot be performed.

User response: There is a problem with the password driver file. See the event description to determine the action to take.

The event (E*xxx*) in the message indicates the following:

E001 Failure to initialize the password driver. Check the return code logged with this event and report this error to IBM support.

E002 Failure to open the password file. Check the return code logged with this event and report this error to IBM Support.

E003 Failure to read from the password file. Check the return code logged with this event and report this error to IBM support.

E004 Failure to write to the password file. Check the return code logged with this event and report this error to IBM Support.

E005 Failure to allocate memory. Check the return code logged with this event and report this error to IBM support.

E006 Failure to find a password entry in the file. Check the return code logged with this event and report this error to IBM Support.

E007 Failure to get table. Check the return code logged with this event and report this error to IBM support.

E008 Failure to rename a file. Check the return code logged with this event and report this error to IBM Support.

E009 Failure to read distributed password file. This error is logged on a non-master node when the enhanced password file (ADX_SDT1:ADXEPW0F.DAT) has not properly been distributed to that node. This should only occur if the user replaced, recreated, or renamed the file during maintenance. Ensure that the file is properly distributed from the master node (mirrored, distribute on update). If this does not resolve the problem, report this error to IBM support.

Note: This error will likely be logged with event E001, error code 80E74003. When the E009 error is resolved, the E001 error should be resolved as well.

E011 Failure related to TCP/IP.

E012 Failure to allocate memory for message.

E013 Failure to find adxautonet in host file.

E014 Failure to open the host file.

E015 Failure to open the adxpw driver.

E016 Failure to create listener process.

E017 Failure to create client process.

E018 Failure to initialize socket.

E019 Failure to send message.

W994 W994 PHYSICAL CONTROLLER NVRAM IS PRESENT

Severity: 5

Explanation: Physical NVRAM will be used for all Controller NVRAM operations.

User response: This message is for information only. No user response is required.

System action: Logged with Unique Data - "Physical NVRAM".

W996 W996 POWER MANAGEMENT EVENT B5/S084/E*xxx*

Severity: 3 or 5

Explanation: The event (E*xxx*) in the message indicates one of the following:

E056 Failure related to Deep Sleep. ACPI suspend type in BIOS Power Management setup is S1, instead of S3 or S1&S3. The user must change the BIOS setting to S3 or S1&S3.

E057 IBM SurePOS 7x1 and 7x2 (4800-721/741/781/722/742/782) systems do not support Deep Sleep or APM. Only soft power off is available as a power management function. This message is for information only. No user response is required.

If you do not want to see this W996 message, set `ADXNOPMG=1` user logical file name in the adx_idt1:adxtrmuf.dat file.

W997 W997 VFS DATA FILE PROBLEM B5/S253/E004

Severity: 1

Explanation: The 4690 Virtual File System (VFS) Server has found a problem in one of its control files.

User response: This message is for information only. No user response is required.

Programmer response: Call the IBM Support Center for software assistance.

System action: Logged as B5/253/Exxx. The system and the VFS Server continues operation. See the B5 information beginning on page 221.

Y*nnn* messages

The Y*nnn* messages (*nnn* = any number) are generated by operating system utilities.

Y003 **Y003 Problem occurred while reading dump data. Data might be missing.**

Explanation: A read error occurred while formatting the dump file. The dump might have incomplete data.

System action: No logging in the store controller.

Y005 **Y005 File I/O error on *xxxxxxxxxxxx*; request omitted.**

Explanation: An error occurred on the file noted in the message. The application continues to process the next request or report.

User response: Follow the *User Response* for message W601.

System action: Logged as W601.

Y006 **Y006 Bad sector found for file *xxxxxxxxxxxx*.**

Explanation: A record within a file was not processed because of a bad sector on the disk. The application continues to process the next request or report.

User response: Follow the *User Response* for message W603.

System action: Logged as W603.

Y007 **Y007 Unable to get *xxxx* storage; request omitted.**

Explanation: One of several requests or reports was omitted because there was no storage available. The application continues to process the next request or report.

User response: Follow the *User Response* for message W609.

System action: Logged as W609.

Y008 **Y008 Error while accessing screen; request omitted.**

Explanation: Cannot open the input screen or the screen is in error. The request or report is omitted. The application continues to process the next request or report.

User response: Follow the *User Response* for message W607.

System action: Logged as W607.

Y009 **Y009 Error while processing screen; request omitted.**

Explanation: Cannot process the input screen or the screen is in error. The request or report is omitted. The application continues to process the next request or report.

User response: Follow the *User Response* for message W616.

System action: Logged as W616.

Y010 **Y010 Error occurred on *xxxxxxxxxxxx*, RC=*xxxxxxxx*.**

Explanation: An error occurred on the file noted in the message. The return code is an operating system error code or -1. If the return code is -1, the error is probably in the screen file. The application continues to process the next request or report.

User response: Follow the *User Response* for message W601.

System action: Logged as W601.

Y011 **Y011 Unexpected end of file found for *xxxxxxxxxxxx*.**

Explanation: End-of-file was found before it was expected. The application continues to process the next request or report.

User response: Follow the *User Response* for message W601.

System action: Logged as W601.

Y012 **Y012 Error accessing the screen file *xxxxxxxxxxxx*.**

Explanation: Cannot open the input screen or the screen is in error. The request or report is omitted. The application continues to process the next request or report.

User response: Follow the *User Response* for message W607.

System action: Logged as W607.

Y013 **Y013 *xxxxxxxxxxxx* was not found.**

Explanation: A request to open or delete a file failed because the file was not found. The application continues to process the next request or report.

User response: Follow the *User Response* for message W601.

System action: Logged as W601.

Y014 **Y014 Control file size is not valid.**

Explanation: The user requested a control file that has a size that is not valid. A control file size should equal the size of a product record plus some multiple of the size of a module record. The specified file was created incorrectly or the disk directory has been corrupted.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Verify that the control file name was entered correctly. If necessary, the control file can be restored from backup.

System action: No logging in the store controller.

Y015 **Y015 Control file cannot be loaded due to insufficient storage.**

Explanation: The system cannot find enough storage to hold the entire Maintenance Control file. Either too many applications are running at the same time or the Maintenance Control file you are trying to read has more than the supported maximum (999) of module records.

User response: Follow “Problem resolution procedure” on page 358.

Programmer response: Verify that the size of the Maintenance Control file that was entered at the first screen of the Build Software Maintenance Control File utility is no larger than 22 571 bytes.

System action: No logging in the store controller.

Y016 **Y016 Control file format is not valid.**

Explanation: The user requested a control file that does not begin with a correct product record or that contains an incorrect module record. The specified file might have been damaged.

User response: Follow “Problem data collection procedure 1” on page 355.

Programmer response: Verify that the control file name was entered correctly. If necessary, the control file can be restored from backup.

System action: No logging in the store controller.

Y017 Y017 Module record cannot be added. Control file buffer is full.

Explanation: An attempt was made to append a module record to the Maintenance Control file when there was no more room in storage. Either too many applications were running at the same time or the Maintenance Control file (to which you are trying to append the module) already has the supported maximum (999) of module records.

User response: Temporarily write the Maintenance Control file to drive A:
1. At screen CSBCS006, press **F3**.
2. At screen CSBCS008, press **Enter**.
3. If screen CSBCS010 appears, type **y**.
4. At screen CSBCS004, press **F3**.
5. Follow "Problem resolution procedure" on page 358.

Programmer response: Verify that the full size of the Maintenance Control file (entered at the first screen of the Build Software Maintenance Control File utility) is not nearing the supported maximum size of 22,571 bytes.

System action: No logging in the store controller.

Y020 Y020 Display program problem.

Explanation: The display program request returned an error code.

User response: Follow the *User Response* for message W627.

System action: Logged as W627.

Y021 Y021 Null record key is not valid.

Explanation: A key within the direct file was found to contain nothing but binary zeros.

User response: Follow the *User Response* for message W630.

System action: Logged as W630.

Y022 Y022 Problem with file *xxxxxxxxxxxx*, RC=*xxxxxxxx*.

Explanation: Any error from the file system of the operating system gets this message.

User response: Follow "Problem data collection procedure 6" on page 356.

Programmer response: Find the System Log entry for B5/S043 and follow the *User Response* for that message.

System action: Logged as B5/S043/E*xxx*.

Y025 Y025 Some information is omitted - disk problem.

Explanation: A record within a file was not processed because of a bad sector on the disk.

User response: Follow the *User Response* for message W603.

System action: Logged as W603.

Y028 Y028 No module records are in control file.

Explanation: No module records are in the control file that was chosen to be transferred to disk or all module records have been previously applied.

User response: Follow "Problem data collection procedure 1" on page 355.

Programmer response: Determine if service is needed for this product. If it is, correct the control file. Refer to *IBM 4690 OS: User's Guide*.

System action: No logging in the store controller.

Z*nnn* messages

The Z*nnn* messages are generated by the 4690 Operating System during Set Terminal Characteristics.

Z000 Z000 (No Message Text)

Explanation: This message clears the display when Set Terminal Characteristics (STC) ends. Normally, this message does not display because the application loader displays message W008 immediately after STC ends.

User response: If this message displays longer than 60 seconds, follow “Problem data collection procedure 2” on page 356.

System action: No logging in the store controller.

Z001 Z001 *(The absence of message text indicates this terminal does not have a terminal number and the store controller files cannot be read.)* or Z001 ENTER TERMINAL NUMBER, KEY S2

Explanation: The terminal is prompting you to enter the terminal number.

User response:
Type a 4-digit terminal number (1*xxx*) and press **S2** (*xxx* = 001 to 999), or type **3, 3, 3, 3**, then press **S2** to exit. Before S2 is pressed, you can reset your entry by pressing **S1**.

Note: This message is also displayed at the Mod2 terminal when the terminal number is not valid or the configuration count does not match the configuration count in the partner terminal.

System action:
For the partner terminal, logged as B5/S086/E011 with unique data consisting of the terminal number that was entered.
For the Mod2 terminal, logged as B5/S086/E013 with unique data consisting of the terminal number that was entered.

Z002 Z002 ENTER REQUEST, KEY S2

Explanation: This message is displayed in response to the S1, 7, 1, S2 keying sequence when a terminal number has been assigned.

The following can be entered:

1, ***x***, ***x***, ***x***, **S2** – When this entry is typed:
- If a valid terminal number other than the currently assigned number is typed, the terminal is reloaded using the newly entered terminal number.
- If a valid terminal number other than the currently assigned number is typed at the Mod2 terminal, message Z004 is displayed. You can press **S1** to reset the Z004 message and return to the original terminal number.
- If the currently assigned terminal number is typed, the terminal configuration information is displayed.

1, 0, 0, 0, S2 – When this entry is typed in:
- The terminal number is reset to 000.
- The terminal operating system is reloaded.
- Message Z001 is displayed.

2, 2, 2, 2, S2 – When this entry is typed in:
- The terminal is reloaded with the current version of the operating system and configuration information.
- You must power Off a partner Mod2 terminal during this operation.

3, 3, 3, 3, S2 – When this entry is typed in:
- Set Terminal Characteristics (STC) is canceled and the initial terminal application is reloaded.
  - If Customer Setup (CSU) is complete, the initial application is your user application.
  - If CSU is not complete, the initial application is CSU.

User response: Enter one of the following options:
- Type a 4-digit terminal number (1, *x*, *x*, *x*), then press **S2**.
- Type **1, 0, 0, 0**, then press **S2** to reset the terminal number.
- Type **2, 2, 2, 2**, then press **S2** to reconfigure the terminal.
- Type **3, 3, 3, 3**, then press **S2** to exit.

  Before the operator presses S2, you can reset your entry by pressing **S1**.

System action:
For the partner terminal, logged as B5/S086/E012 with unique data consisting of the terminal number that was entered.
For the Mod2 terminal, logged as B5/S086/E014 with unique data consisting of the terminal number that was entered.

Z003 Z003 POWER OFF KEY AT MASTER

Explanation: Reconfiguration (**2, 2, 2, 2, S2**) must be done at the partner Mod1 terminal.

User response: Power Off the Mod2 terminal before going to the partner terminal or cancel the request by pressing **S1**. If the request is canceled, the default application is loaded.

System action: No logging in the store controller.

Z004 Z004 POWER OFF THIS TERMINAL

Explanation: You must power Off the terminal base unit.

User response: Switch the power Off at the base unit or cancel the request by pressing **S1**. If the request is canceled, the original terminal number is retained and the default application is loaded.

System action: The following describes the actions that occur:
Terminal powered Off
No message logged.
S1 pressed
Logged as B5/S086/E016 with unique data consisting of the terminal number that was entered. This action logs the cancellation of message Z002 B5/S086/E014.

Z005 Z005 (No Message Text) or Z005 TERMINAL NUMBER NOT VALID. KEY S2

Explanation: The terminal number that was entered in response to message Z001 or message Z002 is not configured or is not defined as a partner point-of-sale terminal if you are running STC at a Mod2 terminal.

User response: Press **S2** to restore the original prompt, then verify the configuration of the terminal number.

System action: No logging in the store controller.

Z006 Z006 POWER OFF PARTNER TERMINAL

Explanation: A function has been selected at the partner terminal that requires that you power Off the Mod2 terminal.

User response: Power Off the Mod2 terminal or cancel the request by pressing **S1**.

System action: No logging in the store controller.

Z008 Z008 ABNORMAL ENDING KEY S2 AND RETRY or Z008 B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*

Explanation: Both messages indicate that Set Terminal Characteristics (STC) ended abnormally.
If the terminal *can* communicate with the store controller, the message is Z008 ABNORMAL ENDING KEY S2 AND RETRY. Error data is also logged in the System Log.
If the terminal *cannot* communicate with the store controller, the message is Z008 B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*.

User response:
If the message is Z008 ABNORMAL ENDING KEY S2 AND RETRY:
- Reload STC (**S1, 7, 1, S2**) and try the operation again.
- If the problem persists:
  1. Follow the procedure for “Requesting a system log report” on page 365.
     Specify option **5** *System Events* when the SYSTEM LOG REPORT screen appears and option **2** *Printer* for destination when the SYSTEM EVENTS REPORT panel appears.
  2. Find the log entry for B5/S086 at the approximate time and date your problem occurred.
  3. See the following table for the required action.

If the message is Z008 B*x*/S*xxx*/E*xxx* RC=*xxxxxxxx*:
See Table 9 on page 188 for the required action.

System action: No logging in the store controller.

Table 9. Message Z008 Error Data. **Note:** *RC stands for return code.*

Error Data	Cause	Action
B5/S086/E001 RC=80830005	Totals retention is inaccessible.	Power Off the terminal and have it serviced.
B5/S086/E001 RC=80830007	Totals retention failure.	Power Off the terminal and have it serviced.
B5/S086/E001 RC=808304A4	Totals retention internal cyclical redundancy check (CRC) error.	Power Off the terminal and have it serviced.
B5/S086/E002 **If the terminal *can* communicate with the store controller, proceed with this cause and action; otherwise, proceed to the following cause and action.**	One of the configuration files could not be opened.	**User Response:** Follow "Problem data collection procedure 6" on page 356. **Programmer Response:** Verify that ADXCSCDF.DAT, and ADXCSCTF.DAT are in subdirectory ADX_SPGM. and that ADXCSOCF.DAT is in subdirectory ADX_STD1. Find the System Log entry for B5/S086/E002 and base your actions on the return code.
B5/S086/E002 **If the terminal *cannot* communicate with the store controller, proceed with this cause and action.**	No controller is answering the TCC requests for this Store ID/Terminal Number.	**User Response:** Follow "Problem data collection procedure 1" on page 355. **Programmer Response:** 1. In LAN environments, verify that the terminal has been defined as a LAN terminal controlled by the intended controller. 2. Verify that the intended controller is in the Controlling state over the LAN connection. If the controller is not in this state, you can change it to Controlling for just this session (using Alt-SysReq, C, 3, 3). It will return to the default state on the next controller IPL. Alternatively, the LANTYPE CONTROL MODE setting can be set for Automatic Resume of TCC Controlling function over the LAN on every IPL. 3. If it is still failing, ensure that the intended controller is in the same LAN segment (or local ring) as the terminal.
B5/S086/E003	A file error occurred while reading from ADXCSCDF.DAT or ADXCSCTF.DAT.	**User Response:** Follow "Problem data collection procedure 6" on page 356. **Programmer Response:** Find the System Log entry for B5/S086/E003 and base your actions on the return code.
B5/S086/E006 RC=80840005	Keyboard or system display is inaccessible.	Verify that the keyboard and display are connected to the proper sockets and their cables are not damaged. If no trouble is found, power Off the terminal and exchange the keyboard. See the hardware service documentation for your point-of-sale terminal.

Table 9. Message Z008 Error Data (continued). **Note:** *RC stands for return code.*

Error Data	Cause	Action
B5/S086/E006 RC=808404C1	Keyboard failure.	Power Off the terminal and exchange the keyboard. See the hardware service documentation for your point-of-sale terminal.
B5/S086/E006 RC=808404C2	Keyboard failure.	Power Off the terminal and exchange the keyboard. See the hardware service documentation for your point-of-sale terminal.
B5/S086/E006 RC=808404C3	Keyboard failure.	Power Off the terminal and exchange the keyboard. See the hardware service documentation for your point-of-sale terminal.
B5/S086/E006 RC=808404C4	Keyboard device is inaccessible.	Verify that the keyboard is connected to the proper socket and its cable is not damaged. If no trouble is found, power Off the terminal and exchange the keyboard. See the hardware service documentation for your point-of-sale terminal.
B5/S086/E007 RC=80830005	Totals retention is inaccessible.	Power Off the terminal and have it serviced.
B5/S086/E007 RC=80830007	Totals retention failure.	Power Off the terminal and have it serviced.
B5/S086/E007 RC=808304A4	Totals retention internal cyclical redundancy check (CRC) error.	Power Off the terminal and have it serviced.
B5/S086/E008 RC=80840005	Keyboard or system display is inaccessible.	Verify that the keyboard and display are connected to the proper sockets and their cables are not damaged. If no trouble is found, power Off the terminal and exchange the keyboard or exchange the system display. See the hardware service documentation for your point-of-sale terminal.
B5/S086/E008 RC=808404C3	Keyboard failure.	Power Off the terminal and exchange the keyboard. See the hardware service documentation for your point-of-sale terminal.
B5/S086/E008 RC=808404C4	Keyboard is inaccessible.	Verify that the keyboard is connected to the proper socket and its cable is not damaged. If no trouble is found, power Off the terminal and exchange the keyboard. See the hardware service documentation for your point-of-sale terminal.
B5/S086/E009 RC=80A00005	The system or operator display is inaccessible.	Verify that the display is connected to the proper socket and its cable is not damaged. If no trouble is found, power Off the terminal and exchange the system display or exchange the operator display. See the hardware service documentation for your point-of-sale terminal.
B5/S086/E009 RC=80A10005	The system display is inaccessible.	Verify that the display is connected to the proper socket and its cable is not damaged. If no trouble is found, power Off the terminal and exchange Feature Expansion card A. See the hardware service documentation for your point-of-sale terminal.

Table 9. Message Z008 Error Data (continued). **Note:** *RC stands for return code.*

Error Data	Cause	Action
B5/S086/E010	Too many devices are configured.	Using system configuration, reconfigure the terminal device groups and select fewer I/O devices.
B5/S086/E024 RC=80F10681	Unable to access C:\ADX_SDT1\ ADXTSAWF.DAT file because the terminal number is not defined as a LAN-attached terminal on the store controller.	Ensure the terminal number is defined as a LAN-attached terminal in the controller's System Configuration, LAN Terminal Definition.
All Other Errors		Follow “Problem data collection procedure 2” on page 356.

Z009 Z009 PARTNER NUMBER NOT VALID. RETRY

Explanation: This message indicates that the partner Mod2 terminal number that was entered in response to message Z011 is the same as its partner terminal number. Press **S2** to retry.

Note: This message is used in the Setup and Verification system only.

User response: Type in a valid Mod2 terminal number.

System action: No logging in the store controller.

Z010 Z010 TO VIEW CONFIG KEY S2 ELSE KEY S1

Explanation: This message indicates that the terminal is ready for the operator to view the terminal configuration messages (Z014 through Z025) by pressing **S2**.

User response:
- To view configuration records, press **S2**.
- To bypass the configuration records and go directly to message Z012, press **S1**.

System action: No logging in the store controller.

Z011 Z011 ENTER PARTNER TERMINAL NUMBER

Explanation: This message prompts the operator to enter the partner Mod2 terminal number.

Note: This message is used in the Setup and Verification system only.

User response:
If a Mod2 terminal is attached, type in a valid partner Mod2 terminal number (1, *x*, *x*, *x*), then press **S2**.
If a Mod2 terminal is *not* attached, type **1, 0, 0, 0**, then press **S2**.

Note: Before **S2** is pressed, the input can be cleared by pressing **S1**.

System action: No logging in the store controller.

Z012 Z012 CONFIGURATION COMPLETE. KEY S2

Explanation: This message indicates that Set Terminal Characteristics (STC) has completed a normal operation.

User response: To continue, press **S2** or if a terminal number was entered and a correction must be made, press **S1**. Message Z001 or message Z002 is displayed.

Notes:

1. On SurePOS 300/700 Series terminals, this message reads:
   ```
   Z012 CONFIGURATION COMPLETE
   ```
2. The terminal number does not become permanent until you press **S2**.

System action: No logging in the store controller.

Z013 Z013 TERMINAL IS DEFINED AS 4683-2

Explanation: The terminal number that was entered for this Mod2 terminal in response to message Z001 or message Z002 is configured for a Mod1 terminal. Either the terminal load definition for the Mod2 terminal is in error or an incorrect terminal number has been entered.

User response: Press **S2** to restore the original prompt, then verify that the entered terminal number is assigned correctly.

System action: No logging in the store controller.

Z014 Z014 INVALID LOAD DEFINITION

Explanation: The terminal number entered does not match the terminal type defined for this terminal number.

User response: Enter **S2** to clear the message and check the terminal load definition in the configuration for the correct terminal type.

System action: No logging in the store controller.

Z015 Z015 KEYBOARD *xx* NOT CONFIGURED

Explanation: This message indicates that the keyboard with device ID *xx* is attached but not configured.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 and “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the keyboard with device ID *xx* is not configured in the terminal device group.

System action: No logging in the store controller.

Z016 Z016 KEYBOARD *xx* NOT ATTACHED

Explanation: This message indicates that the keyboard with device ID *xx* is configured but not attached.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 and “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the keyboard with device ID *xx* is not attached to this terminal.

System action: No logging in the store controller.

Z017 Z017 DISPLAY *xx* NOT CONFIGURED

Explanation: This message indicates that the display with device ID is attached but not configured.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 and “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423

User response: Verify that the display with device ID *xx* is not configured in the terminal device group.

System action: No logging in the store controller.

Z018 Z018 DISPLAY *xx* NOT ATTACHED

Explanation: This message indicates that the display with device ID *xx* is configured but not attached.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420.

User response: Verify that the display with device ID *xx* is not attached to this terminal.

System action: No logging in the store controller.

Z019 Z019 MSR *xx* NOT CONFIGURED

Explanation: This message indicates that the MSR with device ID *xx* is attached but not configured.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 and “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the MSR with device ID *xx* is not configured in the terminal device group.

System action: No logging in the store controller.

Z020 Z020 MSR *xx* NOT ATTACHED

Explanation: This message indicates that the MSR with device ID *xx* is configured but not attached.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 and “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the MSR with device ID *xx* is not attached to this terminal.

System action: No logging in the store controller.

Z021 Z021 PRINTER *xx* NOT CONFIGURED

Explanation: This message indicates that the printer with device ID *xx* is attached but not configured.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 and “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the printer with device ID *xx* is not configured.

System action: No logging in the store controller.

Z022 Z022 PRINTER *xx* NOT ATTACHED

Explanation: This message indicates that the printer with device ID *xx* is configured but not attached.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 and “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the printer with device ID *xx* is not attached to this terminal.

System action: No logging in the store controller.

Z023 Z023 SCANNER *xx* NOT CONFIGURED

Explanation: This message indicates that the scanner with device ID *xx* is attached but not configured.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the scanner with device ID *xx* is not configured in the terminal device group.

System action: No logging in the store controller.

Z024 Z024 SCANNER *xx* NOT ATTACHED

Explanation: This message indicates that the scanner with device ID *xx* is configured but not attached.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the scanner with device ID *xx* is not attached to the terminal.

System action: No logging in the store controller.

Z025 Z025 RS232 *xx* NOT CONFIGURED

Explanation: This message indicates that the RS-232 device with device ID *xx* is attached but not configured.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the RS-232 device with device ID *xx* is not configured in the terminal device group.

System action: No logging in the store controller.

Z026 Z026 RS232 *xx* NOT ATTACHED

Explanation: This message indicates that the RS-232 device with device type *xx* is configured but not attached.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the RS-232 device with device ID *xx* is not attached to this terminal.

System action: No logging in the store controller.

Z027 Z027 CASHDRAWER *xx* NOT CONFIGURED

Explanation: This message indicates that the cash drawer with device ID *xx* is attached but not configured.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the cash drawer with device ID *xx* is not configured in the terminal device group.

System action: No logging in the store controller.

Z028 Z028 CASHDRAWER *xx* NOT ATTACHED

Explanation: This message indicates that the cash drawer with device ID *xx* is configured but not attached.

For a list of valid terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

User response: Verify that the cash drawer with device ID *xx* is not attached to the terminal.

System action: No logging in the store controller.

Z029 Z029 FEATURE 2A *x* NOT CONFIGURED

Explanation: This message indicates that the Feature Expansion card in location 2A is attached but not configured. (*x*= A, B, C, D, or E).

User response: Verify that the Feature Expansion *x* is not configured in the terminal device group.

System action: No logging in the store controller.

Z030 Z030 FEATURE 2B *x* NOT CONFIGURED

Explanation: This message indicates that the Feature Expansion card in location 2B is attached but not configured. (*x*= A, B, C, D, or E).

User response: Verify that the Feature Expansion *x* is not configured in the terminal device group.

System action: No logging in the store controller.

Z031 Z031 FEATURE 2A *x* NOT ATTACHED

Explanation: This message indicates that the Feature Expansion card in location 2A is configured but not attached. (*x*= A, B, C, D, or E).

User response: Verify that the Feature Expansion *x* is not attached to this terminal.

System action: No logging in the store controller.

Z032 Z032 FEATURE 2B *x* NOT ATTACHED

Explanation: This message indicates that the Feature Expansion card in location 2B is configured but not attached. (*x*= A, B, C, D, or E).

User response: Verify that the Feature Expansion *x* is not attached to this terminal.

System action: No logging in the store controller.

Z033 Z033 (name of the application configured)

Explanation: This message indicates the name of the application that is configured for this terminal.

System action: No logging in the store controller.

Z034 Z034 VIDEO CONFIGURED

Explanation: This message indicates that the video is configured for the 4693-4*x*1 and the 4693-2*x*2.

User response: None

System action: No logging in the store controller.

Z035 Z035 STORE ID *xxxx*

Explanation: This message indicates the store ID that is defined for this terminal.

User response: None

System action: No logging in the store controller.

Z036 Z036 RS232 *xx* CONFIGURED

Explanation: This message indicates that the RS-232 device with device ID *xx* is configured.

User response: None

System action: No logging in the store controller.

Z037 Z037 TOUCH *xx* NOT CONFIGURED

Explanation: This message indicates that the touch screen with device ID *xx* is not configured.

User response: Verify that the touch screen with device ID *xx* is not configured.

System action: No logging in the store controller.

Z040 Z040 TOUCH *xx* NOT ATTACHED

Explanation: This message indicates that the touch screen with device ID *xx* is configured but not attached.

User response: Verify that the touch screen with device ID *xx* is not attached.

System action: No logging in the store controller.

Z041 Z041 TO FORMAT DISK KEY S1 ELSE KEY S2

Explanation: This message indicates that you can format the disk.

User response:

- To format the disk, press **S1**.
- To bypass the format, press **S2**.

System action: No logging in the store controller.

Z042 Z042 FORMATTING...

Explanation: This message indicates that the disk is being formatted.

System action: No logging in the store controller.

Z043 Z043 FORMAT FAILED, KEY S2

Explanation: This message indicates that the format failed.

User response: Press **S2** to clear the message.

System action: No logging in the store controller.

Z044 Z044 FORMAT COMPLETE KEY S2

Explanation: This message indicates that the format is complete.

User response: To continue, press **S2**.

System action: No logging in the store controller.

Z045 Z045 CLEAR TERMINAL NUMBER TO FORMAT C

Explanation: The terminal number must be set to zero (000) to be offered the option to format the terminal hard drive. Enhanced mode terminals open a number of extra files on various hard drive partitions under normal operating circumstances that prevent the possibility of reformatting the terminal hard drive. Setting the terminal number to zero or clearing the terminal number by pressing the dump button at U005 prevents these extra files from being opened to allow the terminal hard drive to be reformatted, if desired.

User response: If the hard drive does not need to be reformatted, no response is necessary and this message can be ignored. If the hard drive does need to be reformatted, then clear the terminal number by pressing the dump button at U005 or using the "Set Terminal Characteristics" program to set the terminal number to 000 at the Z001 prompt.

System action: No logging in the store controller.

Z046 Z046 ENHANCED MODE DISK PREP

Explanation: The system is preparing the hard drive for Enhanced Mode.

Note: This does not affect any existing data on the C: drive of the terminal.

User response: No action is required. System load continues after the disk preparation is complete.

System action: No logging in the store controller.

Z047 Z047 ENHANCED MODE DISK PREP COMPLETE

Explanation: The hard disk is now prepared for Enhanced Mode.

User response: No action is required. System load continues.

System action: No logging in the store controller.

Z050 Z050 (name of the DOS boot disk image file)

Explanation: This message indicates the name of the DOS boot disk image that is configured for this terminal. 4693-3*x*1, or 4693-2*x*2.

System action: No logging in the store controller.

Z100 Z100 (No Message Text)

Explanation: This message indicates that the Remote STC Application is running.

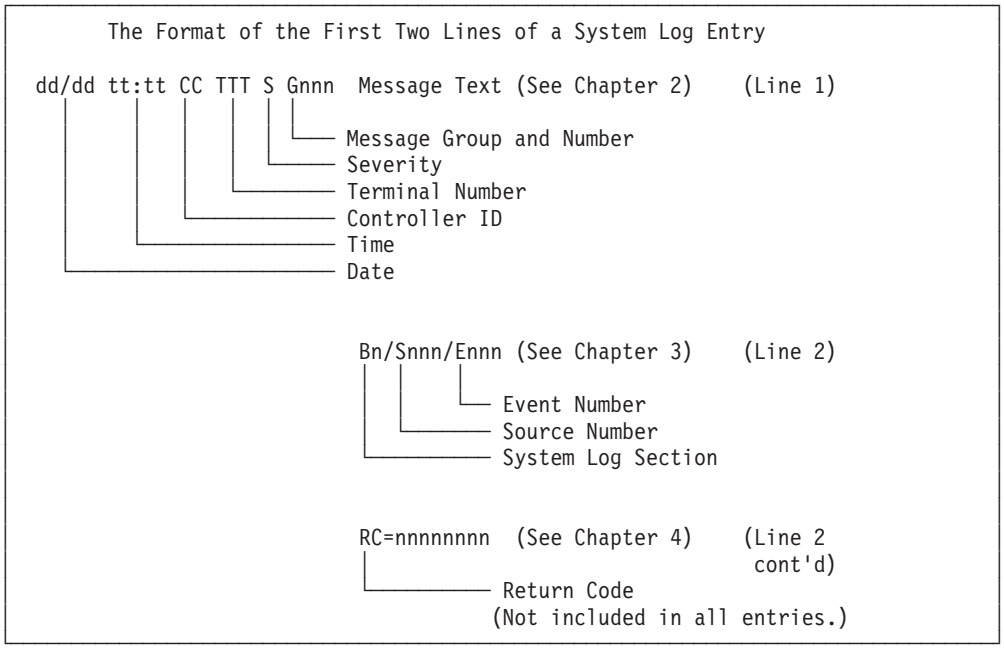
User response: None

System action: No logging in the store controller.

Chapter 3. System log descriptions

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Unique Data Formats 254
Alert Numbers. 266

This chapter contains information about the B***x***/S***xxx***/E***xxx*** entry in system messages. Information about ***Alerts*** and ***Unique Data*** is also in this chapter.


The Format of the First Two Lines of a System Log Entry
dd/dd tt:tt CC TTT S Gnnn Message Text (See Chapter 2) (Line 1)
Message Group and Number
Severity
Terminal Number
Controller ID
Time
Date
Bn/Snnn/Ennn (See Chapter 3) (Line 2)
Event Number
Source Number
System Log Section
RC=nnnnnnnn (See Chapter 4) (Line 2 cont'd)
Return Code
(Not included in all entries.)

Introduction

The operating system provides an event and error logging function that gives you a record of events surrounding a system error. The data collected by the event/error logging function is stored in a set of files called the *system log*. You can use the data in the system log to resolve system problems.

The system log consists of six sections (B1 through B6). Placing data into these sections helps separate entries that are *errors* (for example, a broken terminal printer) from entries that are *expected occurrences* (for example, a terminal recovering from a power line disturbance). The system uses the following guidelines to select a section for a particular event or error.

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Table 10. System log sections

System log section	Description	Use
B1	Store controller hardware errors	Used for conditions that can be corrected by hardware repair at the store controller. Controller events as hardware events could be software related but appear to be hardware related. For example, software errors causing a file to be appended rather than overwritten could cause a file to grow significantly, and thus create what appears to be a file services storage problem, when actually it is a software problem.
B2	Terminal hardware errors	Used for conditions that can be corrected by hardware repair at the terminal.
B3	Terminal events	Used for recording minor, recoverable, or statistical errors or events in the terminal. These events may or may not be related to hardware errors. If an event *is* related to a hardware error, the error was temporary and the terminal has recovered. If an unrecoverable hardware error occurs, this event will be logged in “B2 - Terminal Hardware Errors” on page 199.
B4	Store controller events	Used for recording minor, recoverable, or statistical errors or events in the store controller.Controller events as hardware events could be software related but appear to be hardware related. For example, software errors causing a file to be appended rather than overwritten could cause a file to grow significantly, and thus create what appears to be a file services storage problem, when actually it is a software problem.
B5	System events	Used for a wide variety of normal expected major events: Initial program loads (IPLs), power line disturbance (PLD) recoveries, program induced conditions (for example, program checks), logical environment conditions (for example missing data), or operator-induced events (for example, choosing a system application).
B6	Application events	Used for events generated by application programs. These are documented in the *Guide to Operations* for the application you are running.

The tables that follow contain descriptions of the log entries found in each section of the system log. These tables also identify the entries that generate a Network Problem Determination Application (NPDA) alert.

- If the Alert Number column contains an N/A, no alert is generated.
- If the Alert Number column contains a number, an alert is generated.

The number can be used in conjunction with the 4690 unique module codes at the host to identify the NPDA modules containing the NPDA screen information. See the *IBM 4690 OS: Communications Programming Reference* and the *IBM 4690 OS: Planning, Installation, and Configuration Guide* for more information about Communication and System Management (C & SM) support.

B1 - Store Controller Hardware Errors

For Source Identification, see on page 418. (Alerts: 1 = Master, 2 = Non-Master)

Table 11. B1 - Store Controller Hardware Errors

Source	Event	Unique data	Alert numbers		See message
S002	E050	N/A	N/A		W872
S004	E017	“Format 20” on page 257	1. X'1D'	2. X'25'	W769
S004	E021	“Format 67” on page 263	1. X'1F'	2. X'27'	W754
S004	E022	“Format 19” on page 257	1. X'20'	2. X'28'	W753

Table 11. B1 - Store Controller Hardware Errors (continued)

Source	Event	Unique data	Alert numbers	See message
S004	E029	“Format 67” on page 263	N/A	W754
S004	E030	“Format 67” on page 263	N/A	W754
S008	E024	N/A	1. X'0E' 2. X'13'	W763
S009	E024	N/A	1. X'0E' 2. X'13'	W763
S010	E002	“Format 37” on page 261	1. X'6D' 2. X'70'	W804
S010	E003	“Format 37” on page 261	1. X'6D' 2. X'70'	W804
S011	E002	“Format 37” on page 261	1. X'5E' 2. X'63'	W804
S011	E003	“Format 37” on page 261	1. X'5E' 2. X'63'	W804
S013	E000	N/A	N/A	W872
S013	E001	N/A	X'01'	W811
S013	E001	N/A	X'01'	W872
S013	E003	N/A	N/A	W810
S013	E004	N/A	N/A	W810
S013	E005	N/A	N/A	W814
S013	E006	N/A	N/A	W810
S013	E009	N/A	N/A	W810
S013	E010	N/A	N/A	W811
S013	E100	N/A	N/A	W872
S015	E002	“Format 37” on page 261	1. X'58' 2. X'5A'	W804
S015	E003	“Format 37” on page 261	1. X'58' 2. X'5A'	W804
S021	E003	“Format 60” on page 262	1. X'AB' 2. X'AD'	W952
S021	E005	“Format 60” on page 262	N/A	W952
S030	E001	“Format 33” on page 260	1. X'03' 2. X'18'	W500
S050	E002	“Format 37” on page 261	1. X'5E' 2. X'63'	W804
S050	E003	“Format 37” on page 261	1. X'5E' 2. X'63'	W804
S052	E003	“Format 54” on page 262	1. X'A6' 2. X'A7'	W827
S052	E004	“Format 55” on page 262	1. X'A8' 2. X'A9'	W824
S083	E030	N/A	N/A	W402
S083	E032	N/A	N/A	W402
S083	E034	N/A	N/A	W402
S255	E014	N/A	N/A	W738

B2 - Terminal Hardware Errors

For Source Identification, see on page 418.

Table 12. B2 - Terminal hardware errors

Source	Event	Unique Data	Alert Numbers	See Message
S002	E050	N/A	N/A	W872
S008	E023	“Format 32” on page 259	N/A	W000
S009	E023	“Format 32” on page 259	N/A	W000

Table 12. B2 - Terminal hardware errors (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S013	E000	N/A	N/A	W872
S013	E001	N/A	X'01'	W872
S013	E100	N/A	N/A	W872
S082	E001	“Format 3” on page 254	X'3D'	W300
S083	E030	N/A	N/A	W402
S083	E032	N/A	N/A	W402
S083	E033	N/A	N/A	W402
S083	E034	N/A	N/A	W402
S084	E004	“Format 31” on page 259	X'05'	W000
S090	E001	“Format 1” on page 254	X'35'	W304
S090	E020	“Format 1” on page 254	N/A	W305
S090	E033	N/A	N/A	W332
S090	E034	N/A	N/A	W332
S090	E035	N/A	N/A	W364
S090	E036	N/A	N/A	W332
S090	E041	“Format 73” on page 264	X'35'	W304
S090	E060	“Format 73” on page 264	N/A	W305
S090	E061	“Format 1” on page 254	N/A	W305
S091	E001	“Format 4” on page 255	X'07'	W303
S091	E050	“Format 74” on page 264	N/A	W303
S091	E055	“Format 74” on page 264	N/A	W356
S092	E001	“Format 4” on page 255	X'07'	W303
S092	E050	“Format 74” on page 264	N/A	W303
S092	E055	“Format 74” on page 264	N/A	W356
S093	E001	“Format 4” on page 255	X'07'	W303
S093	E050	“Format 74” on page 264	N/A	W303
S093	E055	“Format 74” on page 264	N/A	W356
S094	E001	“Format 38” on page 261	X'5C'	W301
S095	E001	N/A	X'37'	W306
S095	E001	N/A	X'37'	W329
S095	E001	N/A	X'37'	W331
S096	E001	N/A	X'37'	W329
S096	E001	N/A	X'37'	W331
S097	E001	N/A	X'37'	W329
S097	E001	N/A	X'37'	W331
S098	E001	N/A	X'40'	W328
S098	E001	N/A	X'40'	W330
S101	E001	“Format 74” on page 264	N/A	W357
S101	E002	“Format 74” on page 264	N/A	W357
S101	E003	“Format 74” on page 264	N/A	W357

Table 12. B2 - Terminal hardware errors (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S101	E004	“Format 74” on page 264	N/A	W357
S102	E001	“Format 11” on page 255	X'2F'	W311
S102	E001	“Format 11” on page 255	X'2F'	W317
S104	E001	“Format 11” on page 255	X'2F'	W312
S108	E001	“Format 2” on page 254	X'6A'	W308
S109	E001	“Format 5” on page 255	X'6A'	W308
S110	E001	“Format 5” on page 255	N/A	W323
S110	E006	“Format 5” on page 255	N/A	W323
S110	E016	“Format 5” on page 255	N/A	W323
S112	E001	“Format 5” on page 255	N/A	W322
S114	E001	“Format 4” on page 255	X'0A'	W302
S114	E017	“Format 4” on page 255	X'0C'	W302
S118	E001	“Format 5” on page 255	X'3E'	W310
S118	E001	“Format 5” on page 255	X'3E'	W316
S120	E001	N/A	N/A	W314
S122	E001	“Format 11” on page 255	X'2F'	W313
S124	E001	“Format 11” on page 255	X'2F'	W309

B3 - Terminal Events

For Source identification, see on page 418.

Table 13. B3 - Terminal events

Source	Event	Unique Data	Alert Numbers	See Message
S069	E000	N/A	N/A	W348
S069	E000	N/A	N/A	W349
S069	E000	N/A	N/A	W351
S069	E000	N/A	N/A	W352
S069	E001	N/A	N/A	W342
S069	E010	N/A	N/A	W335
S069	E011	N/A	N/A	W336
S069	E015	N/A	N/A	W338
S069	E016	N/A	N/A	W339
S069	E017	N/A	N/A	W340
S069	E018	N/A	N/A	W344
S069	E019	N/A	N/A	W341
S069	E020	N/A	N/A	W335
S069	E021	N/A	N/A	W335
S069	E022	N/A	N/A	W345

Table 13. B3 - Terminal events (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S069	E023	N/A	N/A	W346
S069	E024	N/A	N/A	W338
S069	E025	N/A	N/A	W347
S069	E026	N/A	N/A	W347
S069	E027	N/A	N/A	W347
S069	E028	N/A	N/A	W347
S069	E029	N/A	N/A	W347
S069	E030	N/A	N/A	W347
S069	E031	N/A	N/A	W347
S074	E101	N/A	N/A	W360
S074	E104	“Format 80” on page 265	N/A	W361
S074	E105	N/A	N/A	W360
S074	E106	N/A	N/A	W360
S074	E107	N/A	N/A	W360
S074	E108	N/A	N/A	W360
S074	E120	“Format 80” on page 265	N/A	W361
S078	E004	“Format 68” on page 263	N/A	W057
S078	E006	“Format 68” on page 263	N/A	W058
S078	E008	N/A	N/A	W056
S079	E007	N/A	N/A	W059
S080	E016	N/A	N/A	W401
S080	E023	N/A	N/A	W000
S080	E023	“Format 32” on page 259	N/A	W401
S080	E024	“Format 32” on page 259	N/A	W401
S082	E020	N/A	N/A	W000
S082	E020	N/A	N/A	W402
S082	E021	N/A	N/A	W000
S082	E021	N/A	N/A	W402
S082	E022	N/A	N/A	W402
S082	E023	N/A	N/A	W402
S082	E024	N/A	X'3D'	W402
S083	E031	N/A	N/A	W402
S083	E033	N/A	N/A	W402
S083	E034	N/A	N/A	W402
S084	E006	N/A	N/A	W355
S090	E001	N/A	X'35'	W354
S090	E010	“Format 1” on page 254	N/A	W403
S090	E011	“Format 1” on page 254	N/A	W403
S090	E013	“Format 1” on page 254	N/A	W403
S090	E014	“Format 1” on page 254	N/A	W403

Table 13. B3 - Terminal events (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S090	E015	“Format 1” on page 254	X'36'	W403
S090	E021	“Format 1” on page 254	N/A	W403
S090	E022	N/A	N/A	W403
S090	E023	N/A	N/A	W403
S090	E038	N/A	N/A	W338
S090	E041	“Format 73” on page 264	X'35'	W354
S090	E042	N/A	N/A	W403
S090	E050	“Format 73” on page 264	N/A	W403
S090	E051	“Format 73” on page 264	N/A	W403
S090	E053	“Format 73” on page 264	N/A	W403
S090	E054	“Format 73” on page 264	N/A	W403
S090	E055	“Format 73” on page 264	X'36'	W403
S090	E061	N/A	N/A	W000
S090	E061	“Format 73” on page 264	N/A	W403
S090	E062	“Format 73” on page 264	N/A	W403
S090	E063	“Format 73” on page 264	N/A	W403
S090	E252	“Format 73” on page 264	N/A	W403
S090	E253	“Format 73” on page 264	N/A	W403
S090	E254	“Format 73” on page 264	N/A	W403
S090	E255	“Format 73” on page 264	N/A	W403
S091	E010	“Format 4” on page 255	N/A	W404
S091	E011	“Format 4” on page 255	N/A	W404
S091	E014	“Format 4” on page 255	X'08'	W404
S091	E015	“Format 4” on page 255	X'08'	W404
S091	E020	“Format 4” on page 255	N/A	W404
S091	E051	“Format 74” on page 264	N/A	W404
S091	E052	“Format 74” on page 264	N/A	W404
S091	E053	“Format 74” on page 264	N/A	W404
S091	E054	“Format 74” on page 264	N/A	W404
S092	E010	“Format 4” on page 255	N/A	W404
S092	E011	“Format 4” on page 255	N/A	W404
S092	E014	“Format 4” on page 255	X'08'	W404
S092	E015	“Format 4” on page 255	X'08'	W404
S092	E020	“Format 4” on page 255	N/A	W404
S092	E051	“Format 74” on page 264	N/A	W404
S092	E052	“Format 74” on page 264	N/A	W404
S092	E053	“Format 74” on page 264	N/A	W404
S092	E054	“Format 74” on page 264	N/A	W404
S093	E010	“Format 4” on page 255	N/A	W404
S093	E011	“Format 4” on page 255	N/A	W404

Table 13. B3 - Terminal events (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S093	E014	“Format 4” on page 255	X'08'	W404
S093	E015	“Format 4” on page 255	X'08'	W404
S093	E020	“Format 4” on page 255	N/A	W404
S093	E051	“Format 74” on page 264	N/A	W404
S093	E052	“Format 74” on page 264	N/A	W404
S093	E053	“Format 74” on page 264	N/A	W404
S093	E054	“Format 74” on page 264	N/A	W404
S094	E011	“Format 38” on page 261	N/A	W404
S094	E014	“Format 38” on page 261	X'5D'	W000
S094	E014	“Format 38” on page 261	X'5D'	W404
S094	E015	“Format 38” on page 261	X'5D'	W404
S095	E011	N/A	N/A	W404
S095	E012	N/A	N/A	W404
S095	E014	N/A	N/A	W404
S096	E010	N/A	N/A	W404
S096	E011	N/A	N/A	W404
S096	E014	N/A	X'38'	W404
S096	E015	N/A	X'38'	W404
S096	E016	N/A	X'38'	W404
S097	E011	N/A	N/A	W404
S097	E012	N/A	N/A	W404
S097	E013	N/A	N/A	W404
S097	E014	N/A	X'38'	W404
S097	E016	N/A	X'38'	W404
S098	E010	N/A	N/A	W404
S098	E011	“Format 39” on page 261	N/A	W404
S098	E014	“Format 39” on page 261	X'41'	W404
S098	E015	“Format 39” on page 261	X'41'	W404
S098	E016	“Format 39” on page 261	X'41'	W404
S099	E001	N/A	N/A	W416
S099	E002	N/A	N/A	W417
S099	E003	N/A	N/A	W418
S099	E004	N/A	N/A	W419
S099	E005	N/A	N/A	E420
S099	E006	N/A	N/A	E421
S100	E030	“Format 74” on page 264	N/A	W404
S100	E031	“Format 74” on page 264	N/A	W404
S100	E032	“Format 74” on page 264	N/A	W404
S101	E011	“Format 74” on page 264	N/A	W404
S101	E014	“Format 74” on page 264	N/A	W404

Table 13. B3 - Terminal events (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S101	E015	“Format 74” on page 264	N/A	W404
S101	E020	“Format 74” on page 264	N/A	W404
S101	E030	“Format 74” on page 264	N/A	W404
S101	E031	“Format 74” on page 264	N/A	W404
S101	E032	“Format 74” on page 264	N/A	W404
S101	E033	“Format 74” on page 264	N/A	W404
S101	E101	“Format 41” on page 261	N/A	W404
S101	E102	“Format 41” on page 261	N/A	W404
S101	E103	“Format 41” on page 261	N/A	W404
S102	E011	“Format 11” on page 255	N/A	W404
S102	E012	“Format 11” on page 255	N/A	W404, W405
S102	E014	“Format 11” on page 255	X'30'	W404
S102	E015	“Format 11” on page 255	X'30'	W405
S102	E016	“Format 11” on page 255	X'30'	W405
S102	E017	“Format 11” on page 255	X'30'	W404
S102	E020	“Format 11” on page 255	X'2F'	W404
S102	E021	“Format 11” on page 255	X'2F'	W404, W405
S102	E022	“Format 11” on page 255	X'2F'	W404, W405
S102	E024	“Format 11” on page 255	N/A	W405
S102	E026	“Format 11” on page 255	N/A	W405
S102	E040	“Format 11” on page 255	N/A	W405
S102	E041	“Format 11” on page 255	N/A	W405
S104	E010	“Format 11” on page 255	N/A	W405
S104	E011	“Format 11” on page 255	N/A	W404
S104	E012	“Format 11” on page 255	N/A	W404, W405
S104	E014	“Format 11” on page 255	X'30'	W404
S104	E015	“Format 11” on page 255	X'30'	W405
S104	E016	“Format 11” on page 255	X'30'	W405
S104	E017	“Format 11” on page 255	X'30'	W000
S104	E017	“Format 11” on page 255	X'30'	W404
S104	E018	“Format 11” on page 255	N/A	W405
S104	E020	“Format 11” on page 255	X'2F'	W405
S104	E021	“Format 11” on page 255	X'2F'	W404, W405
S104	E022	“Format 11” on page 255	X'2F'	W404, W405
S104	E024	“Format 11” on page 255	N/A	W405
S104	E026	“Format 11” on page 255	N/A	W405
S104	E037	“Format 81” on page 265	N/A	W405
S104	E040	N/A	N/A	W000
S104	E040	“Format 11” on page 255	N/A	W405
S104	E041	N/A	N/A	W000

Table 13. B3 - Terminal events (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S104	E041	“Format 11” on page 255	N/A	W405
S108	E011	“Format 2” on page 254	N/A	W404
S108	E014	“Format 2” on page 254	X'6C'	W404
S108	E015	“Format 2” on page 254	X'6C'	W404
S108	E020	“Format 2” on page 254	X'6B'	W404
S109	E000	N/A	N/A	W404
S109	E011	“Format 5” on page 255	N/A	W404
S109	E014	“Format 5” on page 255	X'6C'	W000
S109	E014	“Format 5” on page 255	X'6C'	W404
S109	E015	“Format 5” on page 255	X'6C'	W404
S109	E030	“Format 5” on page 255	N/A	W404
S109	E031	“Format 5” on page 255	N/A	W404
S109	E032	“Format 5” on page 255	N/A	W404
S110	E002	“Format 5” on page 255	N/A	W404
S110	E003	“Format 5” on page 255	N/A	W404
S110	E004	“Format 5” on page 255	N/A	W404
S110	E007	“Format 5” on page 255	N/A	W404
S110	E010	“Format 5” on page 255	N/A	W404
S110	E011	“Format 5” on page 255	N/A	W404
S110	E013	“Format 5” on page 255	N/A	W404
S110	E014	N/A	N/A	W000
S110	E014	“Format 5” on page 255	N/A	W404
S110	E015	“Format 5” on page 255	N/A	W404
S110	E016	“Format 5” on page 255	N/A	W404
S112	E010	“Format 5” on page 255	N/A	W404
S112	E011	“Format 5” on page 255	N/A	W404
S112	E013	“Format 5” on page 255	N/A	W404
S112	E014	“Format 5” on page 255	N/A	W404
S112	E015	“Format 5” on page 255	N/A	W404
S112	E016	“Format 5” on page 255	N/A	W404
S114	E010	N/A	N/A	W000
S114	E010	“Format 4” on page 255	N/A	W404
S114	E011	“Format 4” on page 255	N/A	W404
S114	E014	“Format 4” on page 255	X'0B'	W404
S114	E015	“Format 4” on page 255	X'0B'	W404
S114	E016	“Format 4” on page 255	X'0B'	W404
S118	E010	“Format 5” on page 255	N/A	W404
S118	E011	“Format 5” on page 255	N/A	W404
S118	E013	“Format 5” on page 255	N/A	W404
S118	E014	“Format 5” on page 255	N/A	W404

Table 13. B3 - Terminal events (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S118	E015	“Format 5” on page 255	N/A	W404
S118	E020	“Format 5” on page 255	X'3F'	W404
S120	E010	N/A	N/A	W404
S120	E011	N/A	N/A	W404
S120	E014	N/A	N/A	W404
S120	E015	“Format 7” on page 255	N/A	W404
S120	E016	“Format 7” on page 255	N/A	W404
S122	E010	“Format 11” on page 255	N/A	W405
S122	E011	N/A	N/A	W000
S122	E011	“Format 11” on page 255	N/A	W404
S122	E012	“Format 11” on page 255	N/A	W404, W405
S122	E014	“Format 11” on page 255	X'30'	W404
S122	E015	“Format 11” on page 255	X'30'	W405
S122	E016	“Format 11” on page 255	X'30'	W405
S122	E017	“Format 11” on page 255	X'30'	W000
S122	E017	“Format 11” on page 255	X'30'	W404
S122	E020	“Format 11” on page 255	X'2F'	W405
S122	E021	“Format 11” on page 255	X'2F'	W404, W405
S122	E022	“Format 11” on page 255	X'2F'	W404, W405
S122	E024	“Format 11” on page 255	N/A	W405
S122	E026	“Format 11” on page 255	N/A	W405
S122	E037	“Format 81” on page 265	N/A	W405
S122	E040	N/A	N/A	W000
S122	E040	“Format 11” on page 255	N/A	W405
S122	E041	N/A	N/A	W000
S122	E041	“Format 11” on page 255	N/A	W405
S124	E010	“Format 11” on page 255	N/A	W405
S124	E011	“Format 11” on page 255	N/A	W404
S124	E012	“Format 11” on page 255	N/A	W404, W405
S124	E014	“Format 11” on page 255	X'30'	W404
S124	E015	“Format 11” on page 255	X'30'	W405
S124	E016	“Format 11” on page 255	X'30'	W405
S124	E017	“Format 11” on page 255	X'30'	W000
S124	E017	“Format 11” on page 255	X'30'	W404
S124	E020	“Format 11” on page 255	X'2F'	W405
S124	E021	“Format 11” on page 255	X'2F'	W404
S124	E022	“Format 11” on page 255	X'2F'	W404, W405
S124	E024	“Format 11” on page 255	N/A	W405
S124	E026	“Format 11” on page 255	N/A	W405
S124	E030	“Format 4” on page 255	N/A	W405

Table 13. B3 - Terminal events (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S124	E036	“Format 11” on page 255	N/A	W405
S124	E037	“Format 81” on page 265	N/A	W405
S124	E040	“Format 11” on page 255	N/A	W405
S124	E041	N/A	N/A	W000
S124	E041	“Format 11” on page 255	N/A	W405

B4 - Store Controller Events

For Source Identification, see on page 418.

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master)

Source	Event	Unique Data	Alert Numbers	See Message
S002	E001	“Format 68” on page 263	N/A	W611
S002	E002	“Format 68” on page 263	N/A	W611
S002	E003	“Format 68” on page 263	N/A	W611
S002	E004	“Format 68” on page 263	N/A	W611
S002	E005	“Format 68” on page 263	N/A	W611
S002	E006	“Format 68” on page 263	N/A	W611
S002	E007	“Format 68” on page 263	N/A	W611
S002	E008	“Format 68” on page 263	N/A	W611
S003	E001	N/A	N/A	W879
S003	E002	“Format 77” on page 265	N/A	W880
S003	E003	“Format 42” on page 261	N/A	W881
S003	E004	“Format 44” on page 261	N/A	W882
S003	E004	“Format 45” on page 261	N/A	W883
S004	E007	“Format 20” on page 257	N/A	W751
S004	E009	“Format 20” on page 257	N/A	W765
S004	E010	“Format 20” on page 257	N/A	W765
S004	E011	“Format 20” on page 257	N/A	W768
S004	E012	“Format 20” on page 257	1. X'1A' 2. X'22'	W767
S004	E013	N/A	N/A	W798
S004	E014	“Format 20” on page 257	1. X'1C' 2. X'24'	W750
S004	E015	N/A	N/A	W776
S004	E018	“Format 20” on page 257	1. X'1E' 2. X'26'	W754
S004	E018	N/A	1. X'1E' 2. X'26'	W775
S004	E019	“Format 67” on page 263	1. X'1F' 2. X'27'	W752
S004	E020	“Format 67” on page 263	1. X'20' 2. X'28'	W753
S004	E023	N/A	1. X'31' 2. X'33'	W755
S004	E024	N/A	1. X'32' 2. X'34'	W755

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S004	E025	N/A	1. X'32' 2. X'34'	W755
S004	E026	N/A	1. X'32' 2. X'34'	W755
S004	E027	“Format 14” on page 256	1. X'32' 2. X'34'	W756
S005	E001	“Format 75” on page 265	N/A	W875
S005	E001	N/A	N/A	W878
S005	E002	“Format 76” on page 265	N/A	W876
S005	E003	“Format 76” on page 265	N/A	W876
S005	E004	“Format 76” on page 265	N/A	W876
S005	E005	“Format 76” on page 265	N/A	W876
S005	E006	“Format 42” on page 261	N/A	W877
S005	E007	“Format 42” on page 261	N/A	W877
S006	E001	“Format 66” on page 263	N/A	W862
S006	E002	“Format 66” on page 263	N/A	W856
S006	E003	“Format 66” on page 263	N/A	W856
S006	E004	“Format 66” on page 263	1. X'BE' 2. X'BF'	W856
S006	E005	“Format 66” on page 263	1. X'C0' 2. X'C1'	W856
S006	E006	“Format 66” on page 263	1. X'C2' 2. X'C3'	W856
S006	E007	“Format 66” on page 263	N/A	W856
S006	E008	“Format 66” on page 263	N/A	W856
S006	E009	“Format 66” on page 263	N/A	W856
S006	E010	“Format 66” on page 263	N/A	W856
S006	E011	“Format 66” on page 263	N/A	W856
S006	E012	“Format 66” on page 263	N/A	W856
S006	E013	“Format 66” on page 263	N/A	W856
S006	E014	“Format 66” on page 263	N/A	W856
S006	E015	“Format 66” on page 263	N/A	W856
S006	E064	“Format 66” on page 263	N/A	W856
S006	E066	“Format 66” on page 263	N/A	W956, W862
S008	E016	N/A	N/A	W780
S008	E017	“Format 40” on page 261	N/A	W781
S008	E018	“Format 40” on page 261	N/A	W787
S008	E023	“Format 32” on page 259	N/A	W782
S008	E024	“Format 32” on page 259	1. X'0E' 2. X'13'	W783
S008	E033	N/A	1. X'0F' 2. X'14'	W764
S008	E035	“Format 40” on page 261	1. X'11' 2. X'16'	W762
S008	E036	“Format 40” on page 261	1. X'0F' 2. X'14'	W760
S008	E040	N/A	1. X'C9' 2. X'C8'	W772
S008	E042	N/A	1. X'CD' 2. X'CC'	W774
S009	E016	N/A	N/A	W780
S009	E017	“Format 40” on page 261	N/A	W781

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S009	E018	“Format 40” on page 261	N/A	W787
S009	E023	“Format 32” on page 259	N/A	W782
S009	E024	“Format 32” on page 259	1. X'0E' 2. X'13'	W783
S009	E033	N/A	1. X'0F' 2. X'14'	W764
S009	E035	“Format 40” on page 261	1. X'11' 2. X'16'	W762
S009	E036	“Format 40” on page 261	1. X'0F' 2. X'14'	W760
S009	E040	N/A	1. X'C9' 2. X'C8'	W772
S009	E042	N/A	1. X'CD' 2. X'CC'	W774
S010	E001	“Format 41” on page 261	1. X'6D' 2. X'70'	W800
S010	E002	“Format 41” on page 261	1. X'6D' 2. X'70'	W800
S010	E003	“Format 41” on page 261	1. X'6D' 2. X'70'	W800
S010	E004	N/A	1. X'6E' 2. X'71'	W801
S010	E005	N/A	1. X'6E' 2. X'71'	W802
S010	E006	N/A	1. X'6F' 2. X'72'	W817
S010	E007	N/A	1. X'6F' 2. X'72'	W817
S010	E008	N/A	1. X'6F' 2. X'72'	W817
S010	E009	“Format 41” on page 261	N/A	W800
S011	E001	“Format 37” on page 261	N/A	W000
S011	E004	“Format 37” on page 261	1. X'5F' 2. X'64'	W000
S011	E005	“Format 37” on page 261	1. X'60' 2. X'65'	W000
S011	E006	“Format 37” on page 261	N/A	W000
S011	E007	“Format 37” on page 261	1. X'61' 2. X'66'	W806
S011	E008	“Format 37” on page 261	N/A	W813
S011	E009	“Format 37” on page 261	1. X'62' 2. X'67'	W806
S011	E010	“Format 37” on page 261	1. X'62' 2. X'67'	W806
S011	E012	“Format 37” on page 261	N/A	W806
S012	E001	“Format 42” on page 261	1. X'4A' 2. X'4C'	W803
S012	E002	“Format 42” on page 261	1. X'4A' 2. X'4C'	W803
S012	E003	“Format 42” on page 261	1. X'4A' 2. X'4C'	W803
S012	E003	“Format 42” on page 261	1. X'4A' 2. X'4C'	W812
S012	E004	“Format 42” on page 261	1. X'4B' 2. X'4D'	W812
S012	E005	“Format 42” on page 261	1. X'4B' 2. X'4D'	W812
S012	E006	“Format 42” on page 261	N/A	W812
S012	E006	“Format 42” on page 261	N/A	W814
S012	E007	N/A	N/A	W885
S012	E008	N/A	N/A	W885
S012	E009	“Format xx” on page 254	N/A	W885
S013	E001	“Format 42” on page 261	X'01'	W811
S013	E003	N/A	N/A	W810
S013	E004	N/A	N/A	W810

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S013	E005	N/A	N/A	W814
S013	E006	N/A	N/A	W810
S013	E009	N/A	N/A	W810
S013	E010	N/A	N/A	W828
S014	E002	“Format 15” on page 256	X'2A'	W807
S014	E004	“Format 15” on page 256	X'2C'	W808
S014	E005	“Format 15” on page 256	N/A	W816
S015	E001	N/A	N/A	W000
S015	E004	N/A	1. X'50' 2. X'53'	W000
S015	E005	N/A	1. X'51' 2. X'54'	W000
S015	E006	N/A	N/A	W000
S015	E007	“Format 37” on page 261	1. X'59' 2. X'5B'	W806
S015	E008	“Format 37” on page 261	N/A	W813
S015	E009	“Format 37” on page 261	1. X'56' 2. X'57'	W806
S015	E010	“Format 37” on page 261	1. X'56' 2. X'57'	W806
S015	E011	N/A	1. X'52' 2. X'55'	W000
S015	E012	N/A	1. X'52' 2. X'55'	W000
S015	E066	“Format 66” on page 263	1. X'BA' 2. X'BB'	W861
S015	E067	“Format 66” on page 263	N/A	W855
S015	E067	“Format 66” on page 263	N/A	W861
S015	E068	“Format 66” on page 263	1. X'BC' 2. X'BD'	W861
S015	E070	“Format 66” on page 263	N/A	W861
S015	E076	“Format 66” on page 263	N/A	W855
S016	E001	“Format 42” on page 261	N/A	W815
S016	E002	“Format 42” on page 261	N/A	W815
S016	E003	“Format 42” on page 261	N/A	W815
S016	E004	“Format 41” on page 261	1. X'4E' 2. X'4F'	W000
S016	E005	“Format 43” on page 261	N/A	W000
S016	E006	“Format 41” on page 261	N/A	W805
S016	E007	“Format 41” on page 261	N/A	W805
S016	E008	“Format 41” on page 261	N/A	W830
S016	E009	“Format 41” on page 261	N/A	W831
S016	E065	“Format 66” on page 263	N/A	W857
S016	E066	“Format 66” on page 263	N/A	W857
S016	E067	“Format 66” on page 263	N/A	W852
S016	E067	“Format 66” on page 263	N/A	W857
S016	E068	“Format 66” on page 263	N/A	W857
S016	E069	“Format 66” on page 263	N/A	W857
S016	E070	“Format 66” on page 263	N/A	W857
S016	E071	“Format 66” on page 263	N/A	W857

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S016	E072	“Format 66” on page 263	N/A	W857
S016	E073	“Format 66” on page 263	N/A	W857
S016	E074	“Format 66” on page 263	N/A	W857
S016	E074	“Format 66” on page 263	N/A	W860
S016	E079	N/A	N/A	W853
S016	E080	N/A	N/A	W854
S017	E001	N/A	1. X'2D' 2. X'2E'	W784
S017	E002	N/A	1. X'2D' 2. X'2E'	W784
S017	E003	N/A	1. X'2D' 2. X'2E'	W000
S017	E004	N/A	1. X'2D' 2. X'2E'	W784
S017	E005	N/A	1. X'2D' 2. X'2E'	W000
S017	E006	N/A	N/A	W784
S017	E010	“Format 63” on page 263	N/A	W785
S017	E011	“Format 63” on page 263	N/A	W785
S017	E012	“Format 64” on page 263	N/A	W785
S017	E013	“Format 65” on page 263	N/A	W785
S017	E014	N/A	N/A	W785
S017	E020	Term. address is first two bytes.	N/A	W784
S017	E021	“Format 63” on page 263	N/A	W785
S017	E022	“Format 63” on page 263	N/A	W785
S017	E023	“Format 63” on page 263	N/A	W785
S017	E024	“Format 63” on page 263	N/A	W785
S017	E025	“Format 63” on page 263	N/A	W785
S017	E026	“Format 63” on page 263	N/A	W785
S017	E027	“Format 63” on page 263	N/A	W785
S017	E032	N/A	N/A	W000
S017	E032	Term. address is first two bytes.	N/A	W784
S017	E102	N/A	N/A	W778
S017	E103	N/A	N/A	W778
S017	E104	N/A	N/A	W778
S017	E105	N/A	N/A	W778
S017	E106	N/A	N/A	W778
S017	E107	N/A	N/A	W778
S017	E108	N/A	N/A	W778
S017	E109	N/A	N/A	W778
S017	E110	N/A	N/A	W778
S019	E030	N/A	N/A	W889
S019	E030	N/A	N/A	W890
S019	E030	N/A	N/A	W891
S019	E035	N/A	N/A	W892

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S019	E036	N/A	N/A	W892
S019	E037	N/A	N/A	W892
S019	E200	See the DHCP Server Troubleshooting section in the *IBM 4690 OS: Communications Programming Reference*	N/A	W978
S019	Exxx	"Format 78" on page 265	N/A	W978
S019	Exxx	"Format 78" on page 265	N/A	W979
S019	E200	See the DHCP Server Troubleshooting section in the *IBM 4690 OS: Communications Programming Reference*	N/A	W980
S019	Eddd	"Format 78" on page 265	N/A	W980
S022	E001	N/A	N/A	W970
S022	E002	N/A	N/A	W970
S022	E003	N/A	N/A	W970
S022	E004	N/A	N/A	W976
S022	E006	N/A	N/A	W976
S022	E007	N/A	N/A	W970
S022	E008	N/A	N/A	W976
S022	E009	N/A	N/A	W977
S022	E010	N/A	N/A	W971
S022	E011	N/A	N/A	W971
S022	E012	N/A	N/A	W971
S022	E013	N/A	N/A	W971
S022	E014	N/A	N/A	W971
S022	E015	N/A	N/A	W970
S022	E016	N/A	N/A	W971
S022	E018	N/A	N/A	W972
S022	E019	N/A	N/A	W973
S022	E050	N/A	N/A	W970
S022	E051	N/A	N/A	W970
S022	E052	N/A	N/A	W970
S022	E053	N/A	N/A	W970
S022	E054	N/A	N/A	W970
S022	E055	N/A	N/A	W970
S022	E056	N/A	N/A	W970
S022	E057	N/A	N/A	W970
S022	E058	N/A	N/A	W970
S022	E059	N/A	N/A	W970
S022	E060	N/A	N/A	W971
S022	E061	N/A	N/A	W970

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S022	E062	N/A	N/A	W971
S024	E101	N/A	N/A	W511
S024	E104	“Format 80” on page 265	N/A	W612
S024	E105	N/A	N/A	W511
S024	E106	N/A	N/A	W511
S024	E107	N/A	N/A	W511
S024	E108	N/A	N/A	W511
S024	E120	“Format 80” on page 265	N/A	W612
S025	E001	N/A	N/A	W965
S025	E002	N/A	N/A	W965
S025	E003	N/A	N/A	W965
S025	E004	N/A	N/A	W965
S025	E005	N/A	N/A	W965
S025	E006	N/A	N/A	W965
S043	E001	“Format 21” on page 257	N/A	W626
S043	E002	“Format 21” on page 257	N/A	W627
S043	E003	“Format 21” on page 257	N/A	W628
S043	E004	N/A	N/A	W629
S043	E005	N/A	N/A	W630
S043	E006	“Format 22” on page 258	N/A	W631
S043	E010	N/A	N/A	W641
S043	E011	N/A	N/A	W642
S043	E012	N/A	N/A	W643
S043	E013	N/A	N/A	W644
S050	E001	“Format 37” on page 261	N/A	W000
S050	E004	“Format 37” on page 261	1. X'5F' 2. X'64'	W000
S050	E005	“Format 37” on page 261	1. X'60' 2. X'65'	W000
S050	E006	“Format 37” on page 261	N/A	W000
S050	E007	“Format 37” on page 261	1. X'61' 2. X'66'	W806
S050	E008	“Format 37” on page 261	N/A	W813
S050	E009	“Format 37” on page 261	1. X'62' 2. X'67'	W806
S050	E010	“Format 37” on page 261	1. X'62' 2. X'67'	W806
S050	E012	“Format 37” on page 261	N/A	W806
S051	E001	“Format 41” on page 261	1. X'6D' 2. X'70'	W829
S051	E002	“Format 41” on page 261	1. X'6D' 2. X'70'	W829
S051	E003	“Format 41” on page 261	1. X'6D' 2. X'70'	W829
S051	E006	N/A	1. X'6F' 2. X'72'	W817
S051	E007	N/A	1. X'6F' 2. X'72'	W817
S051	E008	N/A	1. X'6F' 2. X'72'	W817
S051	E009	“Format 41” on page 261	N/A	W829

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S052	E001	“Format 41” on page 261	N/A	W825
S052	E002	“Format 53” on page 262	N/A	W826
S053	E002	“Format 15” on page 256	N/A	W818
S053	E004	“Format 15” on page 256	N/A	W820
S055	E010	“Format 51” on page 262	N/A	W660
S055	E018	N/A	N/A	W681
S055	E037	N/A	N/A	W682
S055	E038	N/A	N/A	W680
S055	E039	N/A	N/A	W682
S055	E153	N/A	N/A	W682
S056	E001	“Format 58” on page 262	N/A	W639
S056	E002	“Format 58” on page 262	N/A	W640
S056	E003	“Format 58” on page 262	N/A	W639
S056	E004	“Format 58” on page 262	N/A	W639
S056	E005	“Format 58” on page 262	N/A	W639
S056	E006	“Format 58” on page 262	N/A	W639
S056	E007	“Format 58” on page 262	N/A	W639
S056	E008	“Format 58” on page 262	N/A	W639
S056	E009	“Format 58” on page 262	N/A	W639
S056	E010	“Format 58” on page 262	N/A	W639
S056	E011	“Format 58” on page 262	N/A	W639
S056	E019	N/A	N/A	W679
S056	E020	N/A	N/A	W679
S056	E021	N/A	N/A	W679
S056	E022	N/A	N/A	W679
S056	E023	N/A	N/A	W679
S056	E024	N/A	N/A	W679
S056	E025	N/A	N/A	W679
S056	E026	N/A	N/A	W679
S056	E027	N/A	N/A	W679
S056	E028	N/A	N/A	W679
S056	E029	N/A	N/A	W679
S056	E030	N/A	N/A	W679
S056	E031	N/A	N/A	W679
S056	E032	N/A	N/A	W679
S056	E033	N/A	N/A	W679
S056	E034	N/A	N/A	W679
S056	E035	N/A	N/A	W679
S056	E036	N/A	N/A	W679
S056	E040	N/A	N/A	W679

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S056	E041	N/A	N/A	W679
S056	E042	N/A	N/A	W679
S056	E043	N/A	N/A	W679
S056	E044	N/A	N/A	W679
S056	E045	N/A	N/A	W679
S056	E046	N/A	N/A	W679
S056	E047	N/A	N/A	W679
S056	E048	N/A	N/A	W679
S056	E049	N/A	N/A	W679
S056	E050	N/A	N/A	W679
S056	E051	N/A	N/A	W679
S056	E052	N/A	N/A	W679
S056	E053	N/A	N/A	W679
S056	E054	N/A	N/A	W679
S056	E055	N/A	N/A	W679
S056	E056	N/A	N/A	W679
S056	E057	N/A	N/A	W679
S056	E058	N/A	N/A	W679
S056	E059	N/A	N/A	W679
S056	E060	N/A	N/A	W679
S056	E061	N/A	N/A	W679
S056	E062	N/A	N/A	W679
S056	E063	N/A	N/A	W679
S056	E064	N/A	N/A	W679
S056	E065	N/A	N/A	W679
S056	E066	N/A	N/A	W679
S056	E067	N/A	N/A	W679
S056	E068	N/A	N/A	W679
S056	E069	N/A	N/A	W679
S056	E070	N/A	N/A	W679
S056	E071	N/A	N/A	W679
S056	E072	N/A	N/A	W679
S056	E073	N/A	N/A	W679
S056	E074	N/A	N/A	W679
S056	E075	N/A	N/A	W679
S056	E076	N/A	N/A	W679
S056	E077	N/A	N/A	W679
S056	E078	N/A	N/A	W679
S056	E079	N/A	N/A	W679
S056	E080	N/A	N/A	W679

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S056	E081	N/A	N/A	W679
S056	E082	N/A	N/A	W679
S056	E083	N/A	N/A	W679
S056	E084	N/A	N/A	W679
S056	E085	N/A	N/A	W679
S056	E086	N/A	N/A	W679
S056	E087	N/A	N/A	W679
S056	E088	N/A	N/A	W679
S056	E089	N/A	N/A	W679
S056	E090	N/A	N/A	W679
S056	E091	N/A	N/A	W679
S056	E092	N/A	N/A	W679
S056	E093	N/A	N/A	W679
S056	E094	N/A	N/A	W679
S056	E095	N/A	N/A	W679
S056	E096	N/A	N/A	W679
S056	E097	N/A	N/A	W679
S056	E098	N/A	N/A	W679
S056	E099	N/A	N/A	W679
S056	E100	N/A	N/A	W679
S056	E101	N/A	N/A	W679
S056	E102	N/A	N/A	W679
S056	E103	N/A	N/A	W679
S056	E104	N/A	N/A	W679
S056	E105	N/A	N/A	W679
S056	E106	N/A	N/A	W679
S056	E107	N/A	N/A	W679
S056	E108	N/A	N/A	W679
S056	E109	N/A	N/A	W679
S056	E110	N/A	N/A	W679
S056	E111	N/A	N/A	W679
S056	E112	N/A	N/A	W679
S056	E113	N/A	N/A	W679
S056	E114	N/A	N/A	W679
S056	E115	N/A	N/A	W679
S056	E116	N/A	N/A	W679
S056	E117	N/A	N/A	W679
S056	E118	N/A	N/A	W679
S056	E119	N/A	N/A	W679
S056	E120	N/A	N/A	W679

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S056	E121	N/A	N/A	W679
S056	E122	N/A	N/A	W679
S056	E123	N/A	N/A	W679
S056	E124	N/A	N/A	W679
S056	E125	N/A	N/A	W679
S056	E126	N/A	N/A	W679
S056	E127	N/A	N/A	W679
S056	E128	N/A	N/A	W679
S056	E129	N/A	N/A	W679
S056	E130	N/A	N/A	W679
S056	E131	N/A	N/A	W679
S056	E132	N/A	N/A	W679
S056	E133	N/A	N/A	W679
S056	E134	N/A	N/A	W679
S056	E135	N/A	N/A	W679
S056	E136	N/A	N/A	W679
S056	E137	N/A	N/A	W679
S056	E138	N/A	N/A	W679
S056	E139	N/A	N/A	W679
S056	E140	N/A	N/A	W679
S056	E141	N/A	N/A	W679
S056	E142	N/A	N/A	W679
S056	E143	N/A	N/A	W679
S056	E144	N/A	N/A	W679
S056	E145	N/A	N/A	W679
S056	E146	N/A	N/A	W679
S056	E147	N/A	N/A	W679
S056	E148	N/A	N/A	W679
S056	E149	N/A	N/A	W679
S056	E150	N/A	N/A	W679
S056	E151	N/A	N/A	W679
S056	E152	N/A	N/A	W679
S056	E154	N/A	N/A	W679
S056	E155	N/A	N/A	W679
S056	E156	N/A	N/A	W679
S056	E157	N/A	N/A	W679
S056	E158	N/A	N/A	W679
S056	E159	N/A	N/A	W679
S056	E160	N/A	N/A	W679
S056	E161	N/A	N/A	W679

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S056	E162	N/A	N/A	W679
S056	E163	N/A	N/A	W679
S056	E164	N/A	N/A	W679
S056	E165	N/A	N/A	W679
S056	E166	N/A	N/A	W679
S056	E167	N/A	N/A	W679
S056	E168	N/A	N/A	W679
S056	E169	N/A	N/A	W679
S056	E170	N/A	N/A	W679
S056	E171	N/A	N/A	W679
S056	E172	N/A	N/A	W679
S056	E173	N/A	N/A	W679
S056	E174	N/A	N/A	W679
S056	E175	N/A	N/A	W679
S056	E176	N/A	N/A	W679
S058	E001	N/A	N/A	W841
S058	E002	N/A	N/A	W842
S058	E003	N/A	N/A	W832
S058	E005	N/A	N/A	W832
S058	E006	N/A	N/A	W832
S058	E007	N/A	N/A	W832
S058	E008	N/A	N/A	W833
S058	E009	N/A	N/A	W833
S058	E010	N/A	N/A	W834
S058	E011	N/A	N/A	W835
S058	E012	N/A	N/A	W836
S058	E015	N/A	N/A	W837
S058	E016	N/A	N/A	W838
S058	E017	N/A	N/A	W839
S058	E018	N/A	N/A	W843
S058	E019	N/A	N/A	W840
S058	E020	N/A	N/A	W834
S058	E021	N/A	N/A	W834
S058	E022	N/A	N/A	W844
S058	E023	N/A	N/A	W845
S058	E024	N/A	N/A	W837
S058	E025	N/A	N/A	W846
S058	E026	N/A	N/A	W846
S058	E027	N/A	N/A	W846
S058	E028	N/A	N/A	W846

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S058	E029	N/A	N/A	W846
S058	E030	N/A	N/A	W846
S058	E031	N/A	N/A	W846
S058	E032	N/A	N/A	W846
S058	E033	N/A	N/A	W846
S058	E034	N/A	N/A	W846
S058	E035	N/A	N/A	W846
S058	E036	N/A	N/A	W846
S058	E037	N/A	N/A	W846
S058	E038	N/A	N/A	W846
S058	E039	N/A	N/A	W847
S058	E040	N/A	N/A	W847
S058	E041	N/A	N/A	W847
S058	E042	N/A	N/A	W847
S058	E043	N/A	N/A	W847
S058	E044	N/A	N/A	W847
S058	E045	N/A	N/A	W847
S058	E046	N/A	N/A	W847
S058	E047	N/A	N/A	W847
S058	E048	N/A	N/A	W847
S058	E049	N/A	N/A	W847
S058	E050	N/A	N/A	W847
S058	E051	N/A	N/A	W847
S058	E052	N/A	N/A	W847
S058	E053	N/A	N/A	W847
S083	E031	N/A	N/A	W402
S083	E034	N/A	N/A	W402
S124	E015	“Format 11” on page 255	X'30'	W000
S124	E022	“Format 11” on page 255	X'2F'	W000
S246	E001	“Format 82” on page 265	N/A	W512
S246	E002	“Format 82” on page 265	N/A	W512
S247	E030	N/A	N/A	W889
S247	E030	N/A	N/A	W890
S247	E030	N/A	N/A	W891
S247	E035	N/A	N/A	W892
S247	E036	N/A	N/A	W892
S247	E037	N/A	N/A	W892
S255	E001	N/A	N/A	W740
S255	E002	N/A	N/A	W741
S255	E003	N/A	N/A	W742

Table 14. B4 - Store Controller Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique Data	Alert Numbers	See Message
S255	E003	N/A	N/A	W743
S255	E005	N/A	N/A	W744
S255	E006	N/A	N/A	W745
S255	E007	N/A	N/A	W746
S255	E008	N/A	N/A	W747
S255	E011	N/A	N/A	W748
S255	E013	N/A	N/A	W749

B5 - System Events

For Source Identification, see “Message General Format” on page 417.

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master)

Source	Event	Unique data	Alert numbers	See message
S000	E193	N/A	N/A	W607
S004	E008	“Format 20” on page 257	N/A	W766
S004	E013	N/A	N/A	W798
S004	E014	Offset of error	1. X'1C' 2. X'24'	W758
S004	E028	N/A	N/A	W759
S008	E037	N/A	1. X'12' 2. X'17'	W770
S008	E038	N/A	1. X'C7' 2. X'C6'	W771
S008	E039	N/A	1. X'C5' 2. X'C4'	W761
S008	E041	N/A	1. X'CB' 2. X'CA'	W773
S008	E043	N/A	N/A	W786
S009	E037	N/A	1. X'12' 2. X'17'	W770
S009	E038	N/A	1. X'C7' 2. X'C6'	W771
S009	E039	N/A	1. X'C5' 2. X'C4'	W761
S009	E041	N/A	1. X'CB' 2. X'CA'	W773
S009	E043	N/A	N/A	W786
S013	E001	N/A	X'01'	W872
S013	E002	N/A	X'02'	W000
S013	E002	N/A	X'02'	W872
S013	E003	N/A	N/A	W810
S013	E003	N/A	N/A	W872
S013	E003	N/A	N/A	W872
S013	E003	N/A	N/A	W872
S013	E004	N/A	N/A	W872
S013	E005	N/A	N/A	W872
S013	E006	N/A	N/A	W810
S013	E006	N/A	N/A	W872
S013	E007	N/A	N/A	W000

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S013	E007	N/A	N/A	W872
S013	E008	N/A	N/A	W000
S013	E008	N/A	N/A	W872
S013	E010	N/A	N/A	W811
S013	E010	N/A	N/A	W872
S014	E001	N/A	N/A	W000
S014	E003	“Format 15” on page 256	X'2B'	W809
S014	E161	“Format 6” on page 255	N/A	W601
S014	E161	“Format 6” on page 255	N/A	W602
S014	E161	“Format 6” on page 255	N/A	W603
S014	E162	“Format 6” on page 255	N/A	W601
S014	E162	“Format 6” on page 255	N/A	W602
S014	E162	“Format 6” on page 255	N/A	W603
S014	E163	“Format 6” on page 255	N/A	W601
S014	E163	“Format 6” on page 255	N/A	W602
S014	E163	“Format 6” on page 255	N/A	W603
S014	E164	“Format 6” on page 255	N/A	W601
S014	E164	“Format 6” on page 255	N/A	W602
S014	E164	“Format 6” on page 255	N/A	W603
S014	E165	“Format 6” on page 255	N/A	W601
S014	E165	“Format 6” on page 255	N/A	W602
S014	E165	“Format 6” on page 255	N/A	W603
S014	E166	“Format 6” on page 255	N/A	W601
S014	E166	“Format 6” on page 255	N/A	W602
S014	E166	“Format 6” on page 255	N/A	W603
S014	E167	“Format 6” on page 255	N/A	W601
S014	E167	“Format 6” on page 255	N/A	W602
S014	E168	“Format 6” on page 255	N/A	W601
S014	E168	“Format 6” on page 255	N/A	W602
S014	E168	“Format 6” on page 255	N/A	W603
S014	E169	“Format 6” on page 255	N/A	W601
S014	E169	“Format 6” on page 255	N/A	W602
S014	E176	“Format 16” on page 256	N/A	W605
S014	E177	N/A	N/A	W609
S014	E177	N/A	N/A	W610
S014	E192	“Format 7” on page 255	N/A	W604
S014	E193	“Format 12” on page 255	N/A	W607
S014	E193	“Format 12” on page 255	N/A	W608
S014	E194	“Format 17” on page 256	N/A	W616
S014	E194	“Format 17” on page 256	N/A	W617

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S014	E195	“Format 35” on page 261	N/A	W616
S014	E195	“Format 35” on page 261	N/A	W617
S014	E208	“Format 8” on page 255	N/A	W606
S017	E101	N/A	N/A	W777
S017	E105	N/A	N/A	W778
S018	E001	N/A	N/A	W662
S018	E002	N/A	N/A	W793
S018	E003	N/A	N/A	W858
S018	E004	N/A	N/A	W658
S018	E005	N/A	N/A	W791
S018	E006	N/A	N/A	W792
S018	E007	N/A	N/A	W794
S018	E008	N/A	N/A	W668
S018	E009	N/A	N/A	W795
S018	E010	N/A	N/A	W796
S018	E011	N/A	N/A	W771
S018	E012	N/A	N/A	W797
S019	E040	N/A	N/A	W893
S019	E040	N/A	N/A	W894
S020	E001	“Format 48” on page 262	N/A	W910
S020	E002	“Format 48” on page 262	N/A	W908
S020	E003	“Format 48” on page 262	N/A	W908
S020	E004	“Format 48” on page 262	1. X'AE' 2. X'AF'	W906
S020	E005	“Format 48” on page 262	1. X'AE' 2. X'AF'	W907
S020	E006	“Format 48” on page 262	1. X'AE' 2. X'AF'	W906
S020	E007	“Format 48” on page 262	1. X'AE' 2. X'AF'	W907
S020	E008	“Format 48” on page 262	N/A	W908
S020	E009	“Format 48” on page 262	N/A	W908
S020	E010	“Format 48” on page 262	N/A	W908
S020	E011	“Format 48” on page 262	N/A	W908
S020	E012	“Format 48” on page 262	N/A	W908
S020	E013	“Format 48” on page 262	N/A	W908
S020	E015	“Format 48” on page 262	N/A	W910
S020	E016	“Format 48” on page 262	N/A	W908
S020	E017	“Format 48” on page 262	N/A	W908
S020	E018	“Format 48” on page 262	N/A	W911
S020	E020	“Format 48” on page 262	N/A	W911
S020	E023	“Format 20” on page 257	N/A	W933
S020	E027	“Format 20” on page 257	N/A	W933
S020	E029	“Format 20” on page 257	1. X'B0' 2. X'B1'	W934

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S020	E030	“Format 20” on page 257	1. X'B2' 2. X'B3'	W935
S020	E031	“Format 20” on page 257	N/A	W936
S020	E032	“Format 20” on page 257	N/A	W937
S020	E033	“Format 49” on page 262	N/A	W944
S020	E034	N/A	N/A	W921
S020	E035	N/A	N/A	W921
S020	E036	N/A	N/A	W917
S020	E037	N/A	N/A	W918
S020	E042	“Format 48” on page 262	N/A	W911
S020	E043	“Format 20” on page 257	N/A	W933
S020	E046	“Format 49” on page 262	1. X'AE' 2. X'AF'	W942
S020	E047	“Format 48” on page 262	1. X'AE' 2. X'AF'	W906
S020	E048	“Format 48” on page 262	1. X'AE' 2. X'AF'	W907
S020	E049	“Format 48” on page 262	1. X'AE' 2. X'AF'	W906
S020	E050	“Format 48” on page 262	1. X'AE' 2. X'AF'	W907
S020	E052	“Format 49” on page 262	N/A	W944
S020	E054	“Format 50” on page 262	N/A	W945
S020	E055	“Format 50” on page 262	1. X'B4' 2. X'B5'	W946
S020	E056	“Format 50” on page 262	1. X'B6' 2. X'B7'	W947
S020	E066	“Format 48” on page 262	N/A	W909
S020	E068	“Format 44” on page 261	N/A	W929
S020	E073	N/A	N/A	W908
S020	E076	N/A	1. X'B8' 2. X'B9'	W948
S020	E077	N/A	1. X'B8' 2. X'B9'	W949
S020	E078	N/A	N/A	W955
S020	E079	N/A	N/A	W956
S020	E080	N/A	N/A	W920
S020	E081	N/A	N/A	W940
S020	E100	N/A	N/A	W000
S021	E001	“Format 60” on page 262	1. X'AA' 2. X'AC'	W060
S021	E001	“Format 60” on page 262	1. X'AA' 2. X'AC'	W950
S021	E001	“Format 60” on page 262	1. X'AA' 2. X'AC'	W958
S021	E001	“Format 60” on page 262	1. X'AA' 2. X'AC'	W959
S021	E001	“Format 60” on page 262	1. X'AA' 2. X'AC'	W964
S021	E002	N/A	N/A	W951
S021	E004	“Format 61” on page 262	N/A	W953
S021	E006	“Format 60” on page 262	N/A	W063
S021	E006	“Format 60” on page 262	N/A	W957
S021	E007	“Format 60” on page 262	N/A	W063
S021	E007	“Format 60” on page 262	N/A	W957

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S021	E008	“Format 60” on page 262	N/A	W063
S021	E008	“Format 60” on page 262	N/A	W957
S021	E009	“Format 60” on page 262	N/A	W063
S021	E009	“Format 60” on page 262	N/A	W957
S021	E009	“Format 60” on page 262	N/A	W958
S021	E011	N/A	N/A	W061
S021	E011	N/A	N/A	W964
S021	E075	N/A	N/A	W859
S021	E077	N/A	N/A	W859
S021	E078	N/A	N/A	W859
S022	E002	N/A	N/A	W983
S024	E002	N/A	N/A	W000
S024	E002	“Format 23” on page 258	N/A	W659
S024	E003	“Format 24” on page 258	N/A	W625
S024	E004	“Format 25” on page 258	N/A	W659
S024	E005	“Format 26” on page 258	N/A	W624
S024	E006	“Format 27” on page 258	1. X'68' 2. X'69'	W635
S024	E007	“Format 28” on page 258	N/A	W619
S024	E007	“Format 28” on page 258	N/A	W992
S024	E008	“Format 29” on page 258	N/A	W620
S024	E008	“Format 29” on page 258	N/A	W650
S024	E008	“Format 47” on page 262	N/A	W989
S024	E009	N/A	N/A	W000
S024	E009	“Format 30” on page 258	N/A	W659
S024	E010	“Format 34” on page 260	N/A	W623
S024	E011	N/A	N/A	W000
S024	E011	“Format 47” on page 262	N/A	W659
S024	E012	“Format 41” on page 261	N/A	W661
S024	E013	“Format 41” on page 261	N/A	W661
S024	E014	“Format 41” on page 261	N/A	W661
S024	E015	“Format 41” on page 261	N/A	W661
S024	E018	“Format 47” on page 262	N/A	W659
S024	E016	“Format 30” on page 258	N/A	W659
S024	E020	N/A	N/A	W000
S024	E020	“Format 30” on page 258	N/A	W659
S024	E021	“Format 22” on page 258	N/A	W647
S024	E022	“Format 22” on page 258	N/A	W646
S024	E023	“Format 22” on page 258	N/A	W645
S024	E033	N/A	N/A	W684
S024	E024	N/A	N/A	W648

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S024	E025	N/A	N/A	W649
S024	E026	“Format 22” on page 258	N/A	W651
S024	E026	“Format 22” on page 258	N/A	W652
S024	E026	“Format 22” on page 258	N/A	W653
S024	E026	“Format 22” on page 258	N/A	W654
S024	E027	“Format 33” on page 260	N/A	W659
S024	E031	N/A	N/A	W676
S024	E032	N/A	N/A	W683
S024	E033	N/A	N/A	W684
S024	E034	N/A	N/A	W982
S024	E035	N/A	N/A	W982
S025	E001	N/A	N/A	W950
S025	E002	N/A	N/A	W951
S025	E003	N/A	N/A	W953
S028	E003	“Format 41” on page 261	N/A	W673
S028	E004	“Format 41” on page 261	N/A	W673
S028	E005	“Format 41” on page 261	N/A	W673
S028	E006	“Format 41” on page 261	N/A	W673
S028	E007	“Format 41” on page 261	N/A	W673
S028	E008	“Format 41” on page 261	N/A	W673
S028	E010	“Format 41” on page 261	N/A	W673
S028	E031	“Format 41” on page 261	N/A	W673
S028	E032	“Format 38” on page 261	N/A	W674
S028	E033	“Format 38” on page 261	N/A	W674
S028	E099	“Format 41” on page 261	N/A	W675
S029	E161	“Format 6” on page 255	N/A	W601
S029	E161	“Format 6” on page 255	N/A	W602
S029	E161	“Format 6” on page 255	N/A	W603
S029	E162	“Format 6” on page 255	N/A	W601
S029	E162	“Format 6” on page 255	N/A	W602
S029	E162	“Format 6” on page 255	N/A	W603
S029	E163	“Format 6” on page 255	N/A	W601
S029	E163	“Format 6” on page 255	N/A	W602
S029	E163	“Format 6” on page 255	N/A	W603
S029	E164	“Format 6” on page 255	N/A	W601
S029	E164	“Format 6” on page 255	N/A	W602
S029	E164	“Format 6” on page 255	N/A	W603
S029	E165	“Format 6” on page 255	N/A	W601
S029	E165	“Format 6” on page 255	N/A	W602
S029	E165	“Format 6” on page 255	N/A	W603

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S029	E166	“Format 6” on page 255	N/A	W601
S029	E166	“Format 6” on page 255	N/A	W602
S029	E166	“Format 6” on page 255	N/A	W603
S029	E167	“Format 6” on page 255	N/A	W601
S029	E167	“Format 6” on page 255	N/A	W602
S029	E168	“Format 6” on page 255	N/A	W601
S029	E168	“Format 6” on page 255	N/A	W602
S029	E168	“Format 6” on page 255	N/A	W603
S029	E169	“Format 6” on page 255	N/A	W601
S029	E169	“Format 6” on page 255	N/A	W602
S029	E176	“Format 16” on page 256	N/A	W605
S029	E177	N/A	N/A	W609
S029	E177	N/A	N/A	W610
S029	E192	“Format 7” on page 255	N/A	W604
S029	E193	“Format 12” on page 255	N/A	W607
S029	E193	“Format 12” on page 255	N/A	W608
S029	E194	“Format 17” on page 256	N/A	W616
S029	E194	“Format 17” on page 256	N/A	W617
S029	E195	“Format 35” on page 261	N/A	W616
S029	E195	“Format 35” on page 261	N/A	W617
S029	E208	“Format 8” on page 255	N/A	W606
S029	E208	N/A	N/A	W617
S030	E000	“Format 33” on page 260	N/A	W599
S030	E001	“Format 33” on page 260	N/A	W598
S030	E001	“Format 33” on page 260	1. X'03' 2. X'18'	W599
S030	E001	4690 file system RC	N/A	W687
S030	E002	“Format 33” on page 260	N/A	W599
S030	E003	“Format 33” on page 260	N/A	W599
S030	E004	“Format 33” on page 260	N/A	W599
S030	E005	N/A	N/A	W000
S030	E005	“Format 33” on page 260	N/A	W599
S030	E006	N/A	N/A	W000
S030	E006	“Format 33” on page 260	N/A	W599
S030	E007	“Format 33” on page 260	N/A	W599
S030	E008	“Format 33” on page 260	N/A	W599
S030	E009	“Format 33” on page 260	N/A	W599
S030	E031	“Format 33” on page 260	1. X'04' 2. X'19'	W000
S030	E031	“Format 33” on page 260	1. X'04' 2. X'19'	W598
S030	E033	“Format 33” on page 260	1. X'3A' 2. X'3B'	W598
S030	E036	“Format 33” on page 260	1. X'3A' 2. X'3B'	W000

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S030	E036	“Format 33” on page 260	1. X'3A' 2. X'3B'	W598
S030	E037	“Format 33” on page 260	N/A	W598
S030	E038	“Format 33” on page 260	N/A	W598
S030	E039	“Format 33” on page 260	N/A	W598
S030	E040	“Format 33” on page 260	N/A	W598
S030	E041	“Format 33” on page 260	N/A	W598
S030	E042	N/A	N/A	W000
S030	E042	“Format 33” on page 260	N/A	W598
S030	E043	“Format 33” on page 260	N/A	W598
S030	E044	“Format 33” on page 260	N/A	W598
S030	E045	“Format 33” on page 260	N/A	W598
S030	E046	“Format 33” on page 260	N/A	W598
S030	E047	“Format 33” on page 260	N/A	W598
S030	E049	“Format 72” on page 264	N/A	W655
S030	E050	N/A	N/A	W779
S030	E051	N/A	N/A	W000
S030	E051	“Format 33” on page 260	N/A	W598
S030	E051	N/A	N/A	W779
S030	E052	“Format 33” on page 260	N/A	W598
S030	E052	“Format 72” on page 264	N/A	W655
S030	E053	Error code is first four bytes.	N/A	W000
S030	E053	“Format 72” on page 264	N/A	W596
S030	E060	N/A	N/A	W677
S030	E061	N/A	N/A	W678
S030	E062	N/A	N/A	W678
S030	E090	“Format 83” on page 265	N/A	W650
S030	E101	4690 return code	N/A	W686
S031	E161	“Format 6” on page 255	N/A	W601
S031	E161	“Format 6” on page 255	N/A	W602
S031	E161	“Format 6” on page 255	N/A	W603
S031	E162	“Format 6” on page 255	N/A	W601
S031	E162	“Format 6” on page 255	N/A	W602
S031	E162	“Format 6” on page 255	N/A	W603
S031	E163	“Format 6” on page 255	N/A	W601
S031	E163	“Format 6” on page 255	N/A	W602
S031	E163	“Format 6” on page 255	N/A	W603
S031	E164	“Format 6” on page 255	N/A	W601
S031	E164	“Format 6” on page 255	N/A	W602
S031	E164	“Format 6” on page 255	N/A	W603
S031	E165	“Format 6” on page 255	N/A	W601

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S031	E165	“Format 6” on page 255	N/A	W602
S031	E165	“Format 6” on page 255	N/A	W603
S031	E166	“Format 6” on page 255	N/A	W601
S031	E166	“Format 6” on page 255	N/A	W602
S031	E166	“Format 6” on page 255	N/A	W603
S031	E167	“Format 6” on page 255	N/A	W601
S031	E167	“Format 6” on page 255	N/A	W602
S031	E168	“Format 6” on page 255	N/A	W601
S031	E168	“Format 6” on page 255	N/A	W602
S031	E168	“Format 6” on page 255	N/A	W603
S031	E169	“Format 6” on page 255	N/A	W601
S031	E169	“Format 6” on page 255	N/A	W602
S031	E176	“Format 16” on page 256	N/A	W605
S031	E177	N/A	N/A	W609
S031	E177	N/A	N/A	W610
S031	E192	“Format 7” on page 255	N/A	W604
S031	E193	“Format 12” on page 255	N/A	W607
S031	E193	“Format 12” on page 255	N/A	W608
S031	E194	“Format 17” on page 256	N/A	W616
S031	E194	“Format 17” on page 256	N/A	W617
S031	E195	“Format 35” on page 261	N/A	W616
S031	E195	“Format 35” on page 261	N/A	W617
S031	E208	“Format 8” on page 255	N/A	W606
S032	E100	N/A	N/A	W988
S032	E161	“Format 6” on page 255	N/A	W601
S032	E161	“Format 6” on page 255	N/A	W602
S032	E161	“Format 6” on page 255	N/A	W603
S032	E162	“Format 6” on page 255	N/A	W601
S032	E162	“Format 6” on page 255	N/A	W602
S032	E162	“Format 6” on page 255	N/A	W603
S032	E163	“Format 6” on page 255	N/A	W601
S032	E163	“Format 6” on page 255	N/A	W602
S032	E163	“Format 6” on page 255	N/A	W603
S032	E164	“Format 6” on page 255	N/A	W601
S032	E164	“Format 6” on page 255	N/A	W602
S032	E164	“Format 6” on page 255	N/A	W603
S032	E165	“Format 6” on page 255	N/A	W601
S032	E165	“Format 6” on page 255	N/A	W602
S032	E165	“Format 6” on page 255	N/A	W603
S032	E166	“Format 6” on page 255	N/A	W601

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S032	E166	“Format 6” on page 255	N/A	W602
S032	E166	“Format 6” on page 255	N/A	W603
S032	E167	“Format 6” on page 255	N/A	W601
S032	E167	“Format 6” on page 255	N/A	W602
S032	E168	“Format 6” on page 255	N/A	W601
S032	E168	“Format 6” on page 255	N/A	W602
S032	E168	“Format 6” on page 255	N/A	W603
S032	E169	“Format 6” on page 255	N/A	W601
S032	E169	“Format 6” on page 255	N/A	W602
S032	E176	“Format 16” on page 256	N/A	W605
S032	E177	N/A	N/A	W609
S032	E177	N/A	N/A	W610
S032	E192	“Format 7” on page 255	N/A	W604
S032	E193	“Format 12” on page 255	N/A	W607
S032	E193	“Format 12” on page 255	N/A	W608
S032	E194	“Format 17” on page 256	N/A	W616
S032	E194	“Format 17” on page 256	N/A	W617
S032	E195	“Format 35” on page 261	N/A	W616
S032	E195	“Format 35” on page 261	N/A	W617
S032	E208	“Format 8” on page 255	N/A	W606
S032	E210	N/A	N/A	W672
S032	E211	N/A	N/A	W672
S032	E212	N/A	N/A	W672
S032	E213	N/A	N/A	W672
S032	E214	N/A	N/A	W672
S032	E215	N/A	N/A	W672
S033	E161	“Format 6” on page 255	N/A	W601
S033	E161	“Format 6” on page 255	N/A	W602
S033	E161	“Format 6” on page 255	N/A	W603
S033	E162	“Format 6” on page 255	N/A	W601
S033	E162	“Format 6” on page 255	N/A	W602
S033	E162	“Format 6” on page 255	N/A	W603
S033	E163	“Format 6” on page 255	N/A	W601
S033	E163	“Format 6” on page 255	N/A	W602
S033	E163	“Format 6” on page 255	N/A	W603
S033	E164	“Format 6” on page 255	N/A	W601
S033	E164	“Format 6” on page 255	N/A	W602
S033	E164	“Format 6” on page 255	N/A	W603
S033	E165	“Format 6” on page 255	N/A	W601
S033	E165	“Format 6” on page 255	N/A	W602

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S033	E165	“Format 6” on page 255	N/A	W603
S033	E166	“Format 6” on page 255	N/A	W601
S033	E166	“Format 6” on page 255	N/A	W602
S033	E166	“Format 6” on page 255	N/A	W603
S033	E167	“Format 6” on page 255	N/A	W601
S033	E167	“Format 6” on page 255	N/A	W602
S033	E168	“Format 6” on page 255	N/A	W601
S033	E168	“Format 6” on page 255	N/A	W602
S033	E168	“Format 6” on page 255	N/A	W603
S033	E169	“Format 6” on page 255	N/A	W601
S033	E169	“Format 6” on page 255	N/A	W602
S033	E176	“Format 16” on page 256	N/A	W605
S033	E177	N/A	N/A	W609
S033	E177	N/A	N/A	W610
S033	E192	“Format 7” on page 255	N/A	W604
S033	E193	“Format 12” on page 255	N/A	W607
S033	E193	“Format 12” on page 255	N/A	W608
S033	E194	“Format 17” on page 256	N/A	W616
S033	E194	“Format 17” on page 256	N/A	W617
S033	E195	“Format 35” on page 261	N/A	W616
S033	E195	“Format 35” on page 261	N/A	W617
S033	E208	“Format 8” on page 255	N/A	W606
S034	E161	“Format 6” on page 255	N/A	W601
S034	E161	“Format 6” on page 255	N/A	W602
S034	E161	“Format 6” on page 255	N/A	W603
S034	E162	“Format 6” on page 255	N/A	W601
S034	E162	“Format 6” on page 255	N/A	W602
S034	E162	“Format 6” on page 255	N/A	W603
S034	E163	“Format 6” on page 255	N/A	W601
S034	E163	“Format 6” on page 255	N/A	W602
S034	E163	“Format 6” on page 255	N/A	W603
S034	E164	“Format 6” on page 255	N/A	W601
S034	E164	“Format 6” on page 255	N/A	W602
S034	E164	“Format 6” on page 255	N/A	W603
S034	E165	“Format 6” on page 255	N/A	W601
S034	E165	“Format 6” on page 255	N/A	W602
S034	E165	“Format 6” on page 255	N/A	W603
S034	E166	“Format 6” on page 255	N/A	W601
S034	E166	“Format 6” on page 255	N/A	W602
S034	E166	“Format 6” on page 255	N/A	W603

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S034	E167	“Format 6” on page 255	N/A	W601
S034	E167	“Format 6” on page 255	N/A	W602
S034	E168	“Format 6” on page 255	N/A	W601
S034	E168	“Format 6” on page 255	N/A	W602
S034	E168	“Format 6” on page 255	N/A	W603
S034	E169	“Format 6” on page 255	N/A	W601
S034	E169	“Format 6” on page 255	N/A	W602
S034	E176	“Format 16” on page 256	N/A	W605
S034	E177	N/A	N/A	W609
S034	E177	N/A	N/A	W610
S034	E192	“Format 7” on page 255	N/A	W604
S034	E193	“Format 12” on page 255	N/A	W607
S034	E193	“Format 12” on page 255	N/A	W608
S034	E194	“Format 17” on page 256	N/A	W616
S034	E194	“Format 17” on page 256	N/A	W617
S034	E195	“Format 35” on page 261	N/A	W616
S034	E195	“Format 35” on page 261	N/A	W617
S034	E208	“Format 8” on page 255	N/A	W606
S035	E006	N/A	N/A	W615
S035	E008	N/A	N/A	W615
S035	E161	“Format 6” on page 255	N/A	W601
S035	E161	“Format 6” on page 255	N/A	W602
S035	E161	“Format 6” on page 255	N/A	W603
S035	E162	“Format 6” on page 255	N/A	W601
S035	E162	“Format 6” on page 255	N/A	W602
S035	E162	“Format 6” on page 255	N/A	W603
S035	E163	“Format 6” on page 255	N/A	W601
S035	E163	“Format 6” on page 255	N/A	W602
S035	E163	“Format 6” on page 255	N/A	W603
S035	E164	“Format 6” on page 255	N/A	W601
S035	E164	“Format 6” on page 255	N/A	W602
S035	E164	“Format 6” on page 255	N/A	W603
S035	E165	“Format 6” on page 255	N/A	W601
S035	E165	“Format 6” on page 255	N/A	W602
S035	E165	“Format 6” on page 255	N/A	W603
S035	E166	“Format 6” on page 255	N/A	W601
S035	E166	“Format 6” on page 255	N/A	W602
S035	E166	“Format 6” on page 255	N/A	W603
S035	E167	“Format 6” on page 255	N/A	W601
S035	E167	“Format 6” on page 255	N/A	W602

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S035	E168	“Format 6” on page 255	N/A	W601
S035	E168	“Format 6” on page 255	N/A	W602
S035	E168	“Format 6” on page 255	N/A	W603
S035	E169	“Format 6” on page 255	N/A	W601
S035	E169	“Format 6” on page 255	N/A	W602
S035	E176	“Format 16” on page 256	N/A	W605
S035	E177	N/A	N/A	W609
S035	E177	N/A	N/A	W610
S035	E192	“Format 7” on page 255	N/A	W604
S035	E193	“Format 12” on page 255	N/A	W607
S035	E193	“Format 12” on page 255	N/A	W608
S035	E194	“Format 17” on page 256	N/A	W616
S035	E194	“Format 17” on page 256	N/A	W617
S035	E195	“Format 35” on page 261	N/A	W616
S035	E195	“Format 35” on page 261	N/A	W617
S035	E208	“Format 8” on page 255	N/A	W606
S036	E161	“Format 6” on page 255	N/A	W601
S036	E161	“Format 6” on page 255	N/A	W602
S036	E161	“Format 6” on page 255	N/A	W603
S036	E162	“Format 6” on page 255	N/A	W601
S036	E162	“Format 6” on page 255	N/A	W602
S036	E162	“Format 6” on page 255	N/A	W603
S036	E163	“Format 6” on page 255	N/A	W601
S036	E163	“Format 6” on page 255	N/A	W602
S036	E163	“Format 6” on page 255	N/A	W603
S036	E164	“Format 6” on page 255	N/A	W601
S036	E164	“Format 6” on page 255	N/A	W602
S036	E164	“Format 6” on page 255	N/A	W603
S036	E165	“Format 6” on page 255	N/A	W601
S036	E165	“Format 6” on page 255	N/A	W602
S036	E165	“Format 6” on page 255	N/A	W603
S036	E166	“Format 6” on page 255	N/A	W601
S036	E166	“Format 6” on page 255	N/A	W602
S036	E166	“Format 6” on page 255	N/A	W603
S036	E167	“Format 6” on page 255	N/A	W601
S036	E167	“Format 6” on page 255	N/A	W602
S036	E168	“Format 6” on page 255	N/A	W601
S036	E168	“Format 6” on page 255	N/A	W602
S036	E168	“Format 6” on page 255	N/A	W603
S036	E169	“Format 6” on page 255	N/A	W601

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S036	E169	“Format 6” on page 255	N/A	W602
S036	E176	“Format 16” on page 256	N/A	W605
S036	E177	N/A	N/A	W609
S036	E177	N/A	N/A	W610
S036	E192	“Format 7” on page 255	N/A	W604
S036	E193	“Format 12” on page 255	N/A	W607
S036	E193	“Format 12” on page 255	N/A	W608
S036	E194	“Format 17” on page 256	N/A	W616
S036	E194	“Format 17” on page 256	N/A	W617
S036	E195	“Format 35” on page 261	N/A	W616
S036	E195	“Format 35” on page 261	N/A	W617
S036	E208	“Format 8” on page 255	N/A	W606
S037	E161	“Format 6” on page 255	N/A	W601
S037	E161	“Format 6” on page 255	N/A	W602
S037	E161	“Format 6” on page 255	N/A	W603
S037	E162	“Format 6” on page 255	N/A	W601
S037	E162	“Format 6” on page 255	N/A	W602
S037	E162	“Format 6” on page 255	N/A	W603
S037	E163	“Format 6” on page 255	N/A	W601
S037	E163	“Format 6” on page 255	N/A	W602
S037	E163	“Format 6” on page 255	N/A	W603
S037	E164	“Format 6” on page 255	N/A	W601
S037	E164	“Format 6” on page 255	N/A	W602
S037	E164	“Format 6” on page 255	N/A	W603
S037	E165	“Format 6” on page 255	N/A	W601
S037	E165	“Format 6” on page 255	N/A	W602
S037	E165	“Format 6” on page 255	N/A	W603
S037	E166	“Format 6” on page 255	N/A	W601
S037	E166	“Format 6” on page 255	N/A	W602
S037	E166	“Format 6” on page 255	N/A	W603
S037	E167	“Format 6” on page 255	N/A	W601
S037	E167	“Format 6” on page 255	N/A	W602
S037	E168	“Format 6” on page 255	N/A	W601
S037	E168	“Format 6” on page 255	N/A	W602
S037	E168	“Format 6” on page 255	N/A	W603
S037	E169	“Format 6” on page 255	N/A	W601
S037	E169	“Format 6” on page 255	N/A	W602
S037	E176	“Format 16” on page 256	N/A	W605
S037	E177	N/A	N/A	W609
S037	E177	N/A	N/A	W610

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S037	E192	“Format 7” on page 255	N/A	W604
S037	E193	“Format 12” on page 255	N/A	W607
S037	E193	“Format 12” on page 255	N/A	W608
S037	E194	“Format 17” on page 256	N/A	W616
S037	E194	“Format 17” on page 256	N/A	W617
S037	E195	“Format 35” on page 261	N/A	W616
S037	E195	“Format 35” on page 261	N/A	W617
S037	E208	“Format 8” on page 255	N/A	W606
S038	E161	“Format 6” on page 255	N/A	W601
S038	E161	“Format 6” on page 255	N/A	W602
S038	E161	“Format 6” on page 255	N/A	W603
S038	E162	“Format 6” on page 255	N/A	W601
S038	E162	“Format 6” on page 255	N/A	W602
S038	E162	“Format 6” on page 255	N/A	W603
S038	E163	“Format 6” on page 255	N/A	W601
S038	E163	“Format 6” on page 255	N/A	W602
S038	E163	“Format 6” on page 255	N/A	W603
S038	E164	“Format 6” on page 255	N/A	W601
S038	E164	“Format 6” on page 255	N/A	W602
S038	E164	“Format 6” on page 255	N/A	W603
S038	E164	“Format 6” on page 255	N/A	W621
S038	E165	“Format 6” on page 255	N/A	W601
S038	E165	“Format 6” on page 255	N/A	W602
S038	E165	“Format 6” on page 255	N/A	W603
S038	E166	“Format 6” on page 255	N/A	W601
S038	E166	“Format 6” on page 255	N/A	W602
S038	E166	“Format 6” on page 255	N/A	W603
S038	E167	“Format 6” on page 255	N/A	W601
S038	E167	“Format 6” on page 255	N/A	W602
S038	E168	“Format 6” on page 255	N/A	W601
S038	E168	“Format 6” on page 255	N/A	W602
S038	E168	“Format 6” on page 255	N/A	W603
S038	E169	“Format 6” on page 255	N/A	W601
S038	E169	“Format 6” on page 255	N/A	W602
S038	E176	“Format 16” on page 256	N/A	W605
S038	E177	N/A	N/A	W609
S038	E177	N/A	N/A	W610
S038	E192	“Format 7” on page 255	N/A	W604
S038	E193	“Format 12” on page 255	N/A	W607
S038	E193	“Format 12” on page 255	N/A	W608

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S038	E194	“Format 17” on page 256	N/A	W616
S038	E194	“Format 17” on page 256	N/A	W617
S038	E195	“Format 35” on page 261	N/A	W616
S038	E195	“Format 35” on page 261	N/A	W617
S038	E195	“Format 6” on page 255	N/A	W622
S038	E208	“Format 8” on page 255	N/A	W606
S039	E161	“Format 6” on page 255	N/A	W601
S039	E161	“Format 6” on page 255	N/A	W602
S039	E161	“Format 6” on page 255	N/A	W603
S039	E162	“Format 6” on page 255	N/A	W601
S039	E162	“Format 6” on page 255	N/A	W602
S039	E162	“Format 6” on page 255	N/A	W603
S039	E163	“Format 6” on page 255	N/A	W601
S039	E163	“Format 6” on page 255	N/A	W602
S039	E163	“Format 6” on page 255	N/A	W603
S039	E164	“Format 6” on page 255	N/A	W601
S039	E164	“Format 6” on page 255	N/A	W602
S039	E164	“Format 6” on page 255	N/A	W603
S039	E165	“Format 6” on page 255	N/A	W601
S039	E165	“Format 6” on page 255	N/A	W602
S039	E165	“Format 6” on page 255	N/A	W603
S039	E166	“Format 6” on page 255	N/A	W601
S039	E166	“Format 6” on page 255	N/A	W602
S039	E166	“Format 6” on page 255	N/A	W603
S039	E167	“Format 6” on page 255	N/A	W601
S039	E167	“Format 6” on page 255	N/A	W602
S039	E168	“Format 6” on page 255	N/A	W601
S039	E168	“Format 6” on page 255	N/A	W602
S039	E168	“Format 6” on page 255	N/A	W603
S039	E169	“Format 6” on page 255	N/A	W601
S039	E169	“Format 6” on page 255	N/A	W602
S039	E176	“Format 16” on page 256	N/A	W605
S039	E177	N/A	N/A	W609
S039	E177	N/A	N/A	W610
S039	E192	“Format 7” on page 255	N/A	W604
S039	E193	“Format 12” on page 255	N/A	W607
S039	E193	“Format 12” on page 255	N/A	W608
S039	E194	“Format 17” on page 256	N/A	W616
S039	E194	“Format 17” on page 256	N/A	W617
S039	E195	“Format 35” on page 261	N/A	W616

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S039	E195	“Format 35” on page 261	N/A	W617
S039	E208	“Format 8” on page 255	N/A	W606
S039	E224	“Format 36” on page 261	N/A	W638
S039	E225	“Format 36” on page 261	N/A	W638
S039	E226	“Format 36” on page 261	N/A	W638
S039	E227	“Format 36” on page 261	N/A	W638
S039	E228	“Format 36” on page 261	N/A	W638
S039	E229	“Format 36” on page 261	N/A	W638
S039	E230	“Format 36” on page 261	N/A	W638
S039	E231	“Format 36” on page 261	N/A	W638
S039	E232	“Format 36” on page 261	N/A	W638
S039	E233	“Format 36” on page 261	N/A	W638
S039	E234	“Format 36” on page 261	N/A	W638
S039	E235	“Format 36” on page 261	N/A	W638
S039	E236	“Format 36” on page 261	N/A	W638
S039	E237	“Format 36” on page 261	N/A	W638
S039	E238	“Format 36” on page 261	N/A	W638
S039	E239	“Format 36” on page 261	N/A	W638
S039	E240	“Format 36” on page 261	N/A	W638
S040	E161	“Format 6” on page 255	N/A	W601
S040	E161	“Format 6” on page 255	N/A	W602
S040	E161	“Format 6” on page 255	N/A	W603
S040	E162	“Format 6” on page 255	N/A	W601
S040	E162	“Format 6” on page 255	N/A	W602
S040	E162	“Format 6” on page 255	N/A	W603
S040	E163	“Format 6” on page 255	N/A	W601
S040	E163	“Format 6” on page 255	N/A	W602
S040	E163	“Format 6” on page 255	N/A	W603
S040	E164	“Format 6” on page 255	N/A	W601
S040	E164	“Format 6” on page 255	N/A	W602
S040	E164	“Format 6” on page 255	N/A	W603
S040	E165	“Format 6” on page 255	N/A	W601
S040	E165	“Format 6” on page 255	N/A	W602
S040	E165	“Format 6” on page 255	N/A	W603
S040	E166	“Format 6” on page 255	N/A	W601
S040	E166	“Format 6” on page 255	N/A	W602
S040	E166	“Format 6” on page 255	N/A	W603
S040	E167	“Format 6” on page 255	N/A	W601
S040	E167	“Format 6” on page 255	N/A	W602
S040	E168	“Format 6” on page 255	N/A	W601

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S040	E168	“Format 6” on page 255	N/A	W602
S040	E168	“Format 6” on page 255	N/A	W603
S040	E169	“Format 6” on page 255	N/A	W601
S040	E169	“Format 6” on page 255	N/A	W602
S040	E176	“Format 16” on page 256	N/A	W605
S040	E177	N/A	N/A	W609
S040	E177	N/A	N/A	W610
S040	E192	“Format 7” on page 255	N/A	W604
S040	E193	“Format 12” on page 255	N/A	W607
S040	E193	“Format 12” on page 255	N/A	W608
S040	E194	“Format 17” on page 256	N/A	W616
S040	E194	“Format 17” on page 256	N/A	W617
S040	E195	“Format 35” on page 261	N/A	W616
S040	E195	“Format 35” on page 261	N/A	W617
S040	E208	“Format 8” on page 255	N/A	W606
S041	E161	“Format 6” on page 255	N/A	W601
S041	E161	“Format 6” on page 255	N/A	W602
S041	E161	“Format 6” on page 255	N/A	W603
S041	E162	“Format 6” on page 255	N/A	W601
S041	E162	“Format 6” on page 255	N/A	W602
S041	E162	“Format 6” on page 255	N/A	W603
S041	E163	“Format 6” on page 255	N/A	W601
S041	E163	“Format 6” on page 255	N/A	W602
S041	E163	“Format 6” on page 255	N/A	W603
S041	E164	“Format 6” on page 255	N/A	W601
S041	E164	“Format 6” on page 255	N/A	W602
S041	E164	“Format 6” on page 255	N/A	W603
S041	E165	“Format 6” on page 255	N/A	W601
S041	E165	“Format 6” on page 255	N/A	W602
S041	E165	“Format 6” on page 255	N/A	W603
S041	E166	“Format 6” on page 255	N/A	W601
S041	E166	“Format 6” on page 255	N/A	W602
S041	E166	“Format 6” on page 255	N/A	W603
S041	E167	“Format 6” on page 255	N/A	W601
S041	E167	“Format 6” on page 255	N/A	W602
S041	E168	“Format 6” on page 255	N/A	W601
S041	E168	“Format 6” on page 255	N/A	W602
S041	E168	“Format 6” on page 255	N/A	W603
S041	E169	“Format 6” on page 255	N/A	W601
S041	E169	“Format 6” on page 255	N/A	W602

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S041	E176	“Format 16” on page 256	N/A	W605
S041	E177	N/A	N/A	W609
S041	E177	N/A	N/A	W610
S041	E192	“Format 7” on page 255	N/A	W604
S041	E193	“Format 12” on page 255	N/A	W607
S041	E193	“Format 12” on page 255	N/A	W608
S041	E194	“Format 17” on page 256	N/A	W616
S041	E194	“Format 17” on page 256	N/A	W617
S041	E195	“Format 35” on page 261	N/A	W616
S041	E195	“Format 35” on page 261	N/A	W617
S041	E208	“Format 8” on page 255	N/A	W606
S041	E225	N/A	N/A	W685
S042	E161	“Format 6” on page 255	N/A	W601
S042	E161	“Format 6” on page 255	N/A	W602
S042	E161	“Format 6” on page 255	N/A	W603
S042	E162	“Format 6” on page 255	N/A	W601
S042	E162	“Format 6” on page 255	N/A	W602
S042	E162	“Format 6” on page 255	N/A	W603
S042	E163	“Format 6” on page 255	N/A	W601
S042	E163	“Format 6” on page 255	N/A	W602
S042	E163	“Format 6” on page 255	N/A	W603
S042	E164	“Format 6” on page 255	N/A	W601
S042	E164	“Format 6” on page 255	N/A	W602
S042	E164	“Format 6” on page 255	N/A	W603
S042	E165	“Format 6” on page 255	N/A	W601
S042	E165	“Format 6” on page 255	N/A	W602
S042	E165	“Format 6” on page 255	N/A	W603
S042	E166	“Format 6” on page 255	N/A	W601
S042	E166	“Format 6” on page 255	N/A	W602
S042	E166	“Format 6” on page 255	N/A	W603
S042	E167	“Format 6” on page 255	N/A	W601
S042	E167	“Format 6” on page 255	N/A	W602
S042	E168	“Format 6” on page 255	N/A	W601
S042	E168	“Format 6” on page 255	N/A	W602
S042	E168	“Format 6” on page 255	N/A	W603
S042	E169	“Format 6” on page 255	N/A	W601
S042	E169	“Format 6” on page 255	N/A	W602
S042	E176	“Format 16” on page 256	N/A	W605
S042	E177	N/A	N/A	W609
S042	E177	N/A	N/A	W610

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S042	E192	“Format 7” on page 255	N/A	W604
S042	E193	“Format 12” on page 255	N/A	W607
S042	E193	“Format 12” on page 255	N/A	W608
S042	E194	“Format 17” on page 256	N/A	W616
S042	E194	“Format 17” on page 256	N/A	W617
S042	E195	“Format 35” on page 261	N/A	W616
S042	E195	“Format 35” on page 261	N/A	W617
S042	E208	“Format 8” on page 255	N/A	W606
S043	E007	N/A	N/A	W632
S043	E008	N/A	N/A	W633
S043	E009	N/A	N/A	W634
S043	E161	“Format 6” on page 255	N/A	W601
S043	E161	“Format 6” on page 255	N/A	W602
S043	E161	“Format 6” on page 255	N/A	W603
S043	E162	“Format 6” on page 255	N/A	W601
S043	E162	“Format 6” on page 255	N/A	W602
S043	E162	“Format 6” on page 255	N/A	W603
S043	E163	“Format 6” on page 255	N/A	W601
S043	E163	“Format 6” on page 255	N/A	W602
S043	E163	“Format 6” on page 255	N/A	W603
S043	E164	“Format 6” on page 255	N/A	W601
S043	E164	“Format 6” on page 255	N/A	W602
S043	E164	“Format 6” on page 255	N/A	W603
S043	E165	“Format 6” on page 255	N/A	W601
S043	E165	“Format 6” on page 255	N/A	W602
S043	E165	“Format 6” on page 255	N/A	W603
S043	E166	“Format 6” on page 255	N/A	W601
S043	E166	“Format 6” on page 255	N/A	W602
S043	E166	“Format 6” on page 255	N/A	W603
S043	E167	“Format 6” on page 255	N/A	W601
S043	E167	“Format 6” on page 255	N/A	W602
S043	E168	“Format 6” on page 255	N/A	W601
S043	E168	“Format 6” on page 255	N/A	W602
S043	E168	“Format 6” on page 255	N/A	W603
S043	E169	“Format 6” on page 255	N/A	W601
S043	E169	“Format 6” on page 255	N/A	W602
S043	E176	“Format 16” on page 256	N/A	W605
S043	E177	N/A	N/A	W609
S043	E177	N/A	N/A	W610
S043	E192	“Format 7” on page 255	N/A	W604

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S043	E193	“Format 12” on page 255	N/A	W607
S043	E193	“Format 12” on page 255	N/A	W608
S043	E194	“Format 17” on page 256	N/A	W616
S043	E194	“Format 17” on page 256	N/A	W617
S043	E195	“Format 35” on page 261	N/A	W616
S043	E195	“Format 35” on page 261	N/A	W617
S043	E208	“Format 8” on page 255	N/A	W606
S044	E161	“Format 45” on page 261	N/A	W602
S044	E177	“Format 47” on page 262	N/A	W990
S044	E177	“Format 47” on page 262	N/A	W991
S044	E193	“Format 45” on page 261	N/A	W608
S045	E161	“Format 6” on page 255	N/A	W601
S045	E161	“Format 6” on page 255	N/A	W602
S045	E161	“Format 6” on page 255	N/A	W603
S045	E162	“Format 6” on page 255	N/A	W601
S045	E162	“Format 6” on page 255	N/A	W602
S045	E162	“Format 6” on page 255	N/A	W603
S045	E163	“Format 6” on page 255	N/A	W601
S045	E163	“Format 6” on page 255	N/A	W602
S045	E163	“Format 6” on page 255	N/A	W603
S045	E164	“Format 6” on page 255	N/A	W601
S045	E164	“Format 6” on page 255	N/A	W602
S045	E164	“Format 6” on page 255	N/A	W603
S045	E165	“Format 6” on page 255	N/A	W601
S045	E165	“Format 6” on page 255	N/A	W602
S045	E165	“Format 6” on page 255	N/A	W603
S045	E166	“Format 6” on page 255	N/A	W601
S045	E166	“Format 6” on page 255	N/A	W602
S045	E166	“Format 6” on page 255	N/A	W603
S045	E167	“Format 6” on page 255	N/A	W601
S045	E167	“Format 6” on page 255	N/A	W602
S045	E168	“Format 6” on page 255	N/A	W601
S045	E168	“Format 6” on page 255	N/A	W602
S045	E168	“Format 6” on page 255	N/A	W603
S045	E169	“Format 6” on page 255	N/A	W601
S045	E169	“Format 6” on page 255	N/A	W602
S045	E176	“Format 16” on page 256	N/A	W605
S045	E177	N/A	N/A	W609
S045	E177	N/A	N/A	W610
S045	E192	“Format 7” on page 255	N/A	W604

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S045	E193	“Format 12” on page 255	N/A	W607
S045	E193	“Format 12” on page 255	N/A	W608
S045	E194	“Format 17” on page 256	N/A	W616
S045	E194	“Format 17” on page 256	N/A	W617
S045	E195	“Format 35” on page 261	N/A	W616
S045	E195	“Format 35” on page 261	N/A	W617
S045	E208	“Format 8” on page 255	N/A	W606
S046	E001	N/A	N/A	W663
S046	E002	N/A	N/A	W663
S046	E003	N/A	N/A	W663
S046	E004	“Format 62” on page 263	N/A	W663
S046	E005	“Format 62” on page 263	N/A	W663
S046	E006	N/A	N/A	W663
S046	E007	N/A	N/A	W663
S046	E008	N/A	N/A	W663
S046	E009	N/A	N/A	W663
S046	E010	“Format 81” on page 265	N/A	W664
S046	E011	“Format 82” on page 265	N/A	W665
S046	E012	N/A	N/A	W663
S046	E013	N/A	N/A	W663
S046	E014	N/A	N/A	W663
S046	E015	N/A	N/A	W663
S046	E016	N/A	N/A	W663
S046	E110	“Format 82” on page 265	N/A	W664
S046	E111	“Format 82” on page 265	N/A	W665
S046	E112	“Format 82” on page 265	N/A	W665
S046	E161	“Format 6” on page 255	N/A	W601
S046	E161	“Format 6” on page 255	N/A	W602
S046	E161	“Format 6” on page 255	N/A	W603
S046	E162	“Format 6” on page 255	N/A	W601
S046	E162	“Format 6” on page 255	N/A	W602
S046	E162	“Format 6” on page 255	N/A	W603
S046	E163	“Format 6” on page 255	N/A	W601
S046	E163	“Format 6” on page 255	N/A	W602
S046	E163	“Format 6” on page 255	N/A	W603
S046	E164	“Format 6” on page 255	N/A	W601
S046	E164	“Format 6” on page 255	N/A	W602
S046	E164	“Format 6” on page 255	N/A	W603
S046	E165	“Format 6” on page 255	N/A	W601
S046	E165	“Format 6” on page 255	N/A	W602

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S046	E165	“Format 6” on page 255	N/A	W603
S046	E166	“Format 6” on page 255	N/A	W601
S046	E166	“Format 6” on page 255	N/A	W602
S046	E166	“Format 6” on page 255	N/A	W603
S046	E167	“Format 6” on page 255	N/A	W601
S046	E167	“Format 6” on page 255	N/A	W602
S046	E168	“Format 6” on page 255	N/A	W601
S046	E168	“Format 6” on page 255	N/A	W602
S046	E168	“Format 6” on page 255	N/A	W603
S046	E169	“Format 6” on page 255	N/A	W601
S046	E169	“Format 6” on page 255	N/A	W602
S046	E176	“Format 16” on page 256	N/A	W605
S046	E177	N/A	N/A	W609
S046	E177	N/A	N/A	W610
S046	E192	“Format 7” on page 255	N/A	W604
S046	E193	“Format 12” on page 255	N/A	W607
S046	E193	“Format 12” on page 255	N/A	W608
S046	E194	“Format 17” on page 256	N/A	W616
S046	E194	“Format 17” on page 256	N/A	W617
S046	E195	“Format 35” on page 261	N/A	W616
S046	E195	“Format 35” on page 261	N/A	W617
S046	E208	“Format 8” on page 255	N/A	W606
S047	E001	“Format 41” on page 261	N/A	W757
S047	E080	N/A	N/A	W678
S047	E081	N/A	N/A	W678
S047	E082	N/A	N/A	W678
S047	E083	N/A	N/A	W678
S047	E084	N/A	N/A	W678
S047	E085	N/A	N/A	W678
S047	E086	N/A	N/A	W678
S047	E087	N/A	N/A	W678
S047	E088	N/A	N/A	W678
S047	E089	N/A	N/A	W678
S047	E090	N/A	N/A	W678
S048	E001	N/A	N/A	W666
S048	E002	N/A	N/A	W666
S048	E004	N/A	N/A	W666
S048	E005	N/A	N/A	W666
S048	E006	N/A	N/A	W666
S048	E016	N/A	N/A	W666

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S048	E017	N/A	N/A	W666
S048	E018	N/A	N/A	W666
S048	E161	N/A	N/A	W601
S049	E161	“Format 6” on page 255	N/A	W601
S049	E161	“Format 6” on page 255	N/A	W602
S049	E161	“Format 6” on page 255	N/A	W603
S049	E162	“Format 6” on page 255	N/A	W601
S049	E162	“Format 6” on page 255	N/A	W602
S049	E162	“Format 6” on page 255	N/A	W603
S049	E163	“Format 6” on page 255	N/A	W601
S049	E163	“Format 6” on page 255	N/A	W602
S049	E163	“Format 6” on page 255	N/A	W603
S049	E164	“Format 6” on page 255	N/A	W601
S049	E164	“Format 6” on page 255	N/A	W602
S049	E164	“Format 6” on page 255	N/A	W603
S049	E165	“Format 6” on page 255	N/A	W601
S049	E165	“Format 6” on page 255	N/A	W602
S049	E165	“Format 6” on page 255	N/A	W603
S049	E166	“Format 6” on page 255	N/A	W601
S049	E166	“Format 6” on page 255	N/A	W602
S049	E166	“Format 6” on page 255	N/A	W603
S049	E167	“Format 6” on page 255	N/A	W601
S049	E167	“Format 6” on page 255	N/A	W602
S049	E168	“Format 6” on page 255	N/A	W601
S049	E168	“Format 6” on page 255	N/A	W602
S049	E168	“Format 6” on page 255	N/A	W603
S049	E169	“Format 6” on page 255	N/A	W601
S049	E169	“Format 6” on page 255	N/A	W602
S049	E176	“Format 16” on page 256	N/A	W605
S049	E177	N/A	N/A	W609
S049	E177	N/A	N/A	W610
S049	E192	“Format 7” on page 255	N/A	W604
S049	E193	“Format 12” on page 255	N/A	W607
S049	E193	“Format 12” on page 255	N/A	W608
S049	E194	“Format 17” on page 256	N/A	W616
S049	E194	“Format 17” on page 256	N/A	W617
S049	E195	“Format 35” on page 261	N/A	W616
S049	E195	“Format 35” on page 261	N/A	W617
S049	E208	“Format 8” on page 255	N/A	W606
S052	E005	“Format 54” on page 262	N/A	W850

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S052	E006	“Format 54” on page 262	N/A	W851
S053	E003	“Format 15” on page 256	N/A	W819
S053	E005	“Format 15” on page 256	N/A	W821
S053	E006	“Format 15” on page 256	N/A	W822
S053	E008	“Format 15” on page 256	N/A	W822
S053	E041	“Format 15” on page 256	N/A	W874
S054	E001	N/A	N/A	W790
S054	E002	N/A	N/A	W790
S054	E003	N/A	N/A	W790
S054	E004	N/A	N/A	W790
S054	E005	N/A	N/A	W790
S054	E006	N/A	N/A	W790
S054	E007	N/A	N/A	W790
S054	E008	N/A	N/A	W790
S054	E009	N/A	N/A	W790
S054	E010	N/A	N/A	W790
S054	E011	N/A	N/A	W790
S054	E012	N/A	N/A	W790
S054	E013	N/A	N/A	W790
S054	E014	N/A	N/A	W790
S054	E015	N/A	N/A	W790
S054	E016	N/A	N/A	W790
S054	E017	N/A	N/A	W000
S054	E017	N/A	N/A	W790
S054	E018	N/A	N/A	W790
S054	E019	N/A	N/A	W790
S054	E020	N/A	N/A	W790
S054	E021	N/A	N/A	W790
S054	E022	N/A	N/A	W790
S054	E101	N/A	N/A	W790
S054	E102	N/A	N/A	W790
S054	E103	N/A	N/A	W790
S054	E104	N/A	N/A	W790
S054	E105	N/A	N/A	W790
S054	E106	N/A	N/A	W790
S054	E107	N/A	N/A	W790
S054	E108	N/A	N/A	W790
S054	E109	N/A	N/A	W790
S054	E110	N/A	N/A	W790
S054	E111	N/A	N/A	W790

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S054	E112	N/A	N/A	W790
S054	E113	N/A	N/A	W790
S054	E114	N/A	N/A	W790
S054	E115	N/A	N/A	W790
S054	E116	N/A	N/A	W790
S054	E117	N/A	N/A	W790
S056	E161	“Format 6” on page 255	N/A	W601
S056	E161	“Format 6” on page 255	N/A	W602
S056	E161	“Format 6” on page 255	N/A	W603
S056	E162	“Format 6” on page 255	N/A	W601
S056	E162	“Format 6” on page 255	N/A	W602
S056	E162	“Format 6” on page 255	N/A	W603
S056	E163	“Format 6” on page 255	N/A	W601
S056	E163	“Format 6” on page 255	N/A	W602
S056	E163	“Format 6” on page 255	N/A	W603
S056	E164	“Format 6” on page 255	N/A	W601
S056	E164	“Format 6” on page 255	N/A	W602
S056	E164	“Format 6” on page 255	N/A	W603
S056	E165	“Format 6” on page 255	N/A	W601
S056	E165	“Format 6” on page 255	N/A	W602
S056	E165	“Format 6” on page 255	N/A	W603
S056	E166	“Format 6” on page 255	N/A	W601
S056	E166	“Format 6” on page 255	N/A	W602
S056	E166	“Format 6” on page 255	N/A	W603
S056	E167	“Format 6” on page 255	N/A	W601
S056	E167	“Format 6” on page 255	N/A	W602
S056	E168	“Format 6” on page 255	N/A	W601
S056	E168	“Format 6” on page 255	N/A	W602
S056	E168	“Format 6” on page 255	N/A	W603
S056	E169	“Format 6” on page 255	N/A	W601
S056	E169	“Format 6” on page 255	N/A	W602
S056	E176	“Format 16” on page 256	N/A	W605
S056	E177	N/A	N/A	W609
S056	E177	N/A	N/A	W610
S056	E192	“Format 7” on page 255	N/A	W604
S056	E193	“Format 12” on page 255	N/A	W607
S056	E193	“Format 12” on page 255	N/A	W608
S056	E194	“Format 17” on page 256	N/A	W616
S056	E194	“Format 17” on page 256	N/A	W617
S056	E195	“Format 35” on page 261	N/A	W616

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S056	E195	“Format 35” on page 261	N/A	W617
S056	E208	“Format 8” on page 255	N/A	W606
S056	E208	N/A	N/A	W617
S057	E001	“Format 59” on page 262	N/A	W667
S057	E002	“Format 56” on page 262	N/A	W667
S057	E003	“Format 57” on page 262	N/A	W667
S057	E004	“Format 57” on page 262	N/A	W667
S057	E005	“Format 57” on page 262	N/A	W000
S057	E006	N/A	N/A	W000
S057	E007	N/A	N/A	W000
S057	E008	“Format 59” on page 262	N/A	W000
S057	E161	“Format 6” on page 255	N/A	W601
S057	E161	“Format 6” on page 255	N/A	W602
S057	E161	“Format 6” on page 255	N/A	W603
S057	E162	“Format 6” on page 255	N/A	W601
S057	E162	“Format 6” on page 255	N/A	W602
S057	E162	“Format 6” on page 255	N/A	W603
S057	E163	“Format 6” on page 255	N/A	W601
S057	E163	“Format 6” on page 255	N/A	W602
S057	E163	“Format 6” on page 255	N/A	W603
S057	E164	“Format 6” on page 255	N/A	W601
S057	E164	“Format 6” on page 255	N/A	W602
S057	E164	“Format 6” on page 255	N/A	W603
S057	E165	“Format 6” on page 255	N/A	W601
S057	E165	“Format 6” on page 255	N/A	W602
S057	E165	“Format 6” on page 255	N/A	W603
S057	E166	“Format 6” on page 255	N/A	W601
S057	E166	“Format 6” on page 255	N/A	W602
S057	E166	“Format 6” on page 255	N/A	W603
S057	E167	“Format 6” on page 255	N/A	W601
S057	E167	“Format 6” on page 255	N/A	W602
S057	E168	“Format 6” on page 255	N/A	W601
S057	E168	“Format 6” on page 255	N/A	W602
S057	E168	“Format 6” on page 255	N/A	W603
S057	E169	“Format 6” on page 255	N/A	W601
S057	E169	“Format 6” on page 255	N/A	W602
S057	E176	“Format 16” on page 256	N/A	W605
S057	E177	N/A	N/A	W609
S057	E177	N/A	N/A	W610
S057	E192	“Format 7” on page 255	N/A	W604

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S057	E193	“Format 12” on page 255	N/A	W607
S057	E193	“Format 12” on page 255	N/A	W608
S057	E194	“Format 17” on page 256	N/A	W616
S057	E194	“Format 17” on page 256	N/A	W617
S057	E195	“Format 35” on page 261	N/A	W616
S057	E195	“Format 35” on page 261	N/A	W617
S057	E208	“Format 8” on page 255	N/A	W606
S064	E001	N/A	X'42'	W000
S064	E001	N/A	X'42'	W100
S064	E001	N/A	X'42'	W407
S064	E002	“Format 45” on page 261	N/A	W008
S064	E002	“Format 45” on page 261	N/A	W100
S064	E003	“Format 45” on page 261	N/A	W008
S064	E003	“Format 45” on page 261	N/A	W100
S064	E004	“Format 45” on page 261	N/A	W008
S064	E005	“Format 45” on page 261	N/A	W407
S064	E006	N/A	N/A	W407
S064	E007	N/A	N/A	W407
S064	E008	N/A	N/A	W101
S064	E009	“Format 45” on page 261	X'43'	W407
S064	E010	“Format 9” on page 255	N/A	W103
S064	E010	“Format 9” on page 255	N/A	W407
S064	E011	“Format 9” on page 255	X'44'	W102
S064	E012	“Format 9” on page 255	X'45'	W100
S064	E012	“Format 9” on page 255	X'45'	W103
S064	E012	“Format 9” on page 255	X'45'	W407
S064	E014	“Format 9” on page 255	N/A	W104
S064	E020	N/A	N/A	W407
S064	E021	N/A	N/A	W105
S064	E022	N/A	N/A	W106
S064	E023	N/A	N/A	W106
S064	E024	N/A	N/A	W106
S064	E025	N/A	N/A	W106
S064	E026	N/A	N/A	W106
S064	E027	N/A	N/A	W106
S064	E028	N/A	N/A	W106
S064	E029	N/A	N/A	W106
S070	E001	N/A	X'46'	W318
S070	E002	N/A	X'46'	W324
S070	E003	N/A	X'46'	W319

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S070	E004	N/A	X'47'	W320
S070	E005	N/A	X'47'	W326
S070	E007	N/A	X'46'	W325
S070	E008	N/A	N/A	W327
S070	E020	N/A	N/A	W362
S074	E001	N/A	N/A	W000
S074	E002	N/A	N/A	W000
S074	E003	N/A	N/A	W000
S074	E004	N/A	N/A	W000
S074	E005	N/A	N/A	W000
S074	E006	N/A	N/A	W000
S074	E018	N/A	N/A	W000
S080	E038	“Format 40” on page 261	N/A	W400
S084	E000	N/A	N/A	W000
S084	E000	“Format 31” on page 259	N/A	W408
S084	E002	N/A	N/A	W000
S084	E002	N/A	N/A	W365
S084	E002	“Format 31” on page 259	N/A	W409
S084	E003	N/A	N/A	W000
S084	E003	“Format 31” on page 259	N/A	W410
S084	E004	“Format 31” on page 259	X'05'	W411
S084	E005	“Format 31” on page 259	N/A	W412
S084	E009	N/A	N/A	W408
S084	E017	N/A	N/A	W408
S084	E020	N/A	N/A	W000
S084	E031	“Format 31” on page 259	X'06'	W052
S084	E032	“Format 31” on page 259	X'06'	W413
S084	E033	“Format 31” on page 259	X'3C'	W054
S084	E034	“Format 31” on page 259	X'3C'	W053
S084	E035	“Format 31” on page 259	X'3C'	W000
S084	E035	“Format 31” on page 259	X'3C'	W410
S084	E036	“Format 31” on page 259	N/A	W051
S084	E045	“Format 31” on page 259	X'3C'	W054
S084	E046	“Format 31” on page 259	X'3C'	W054
S084	E099	“Format 9” on page 255	N/A	W102
S084	E050	N/A	N/A	W054
S084	E051	N/A	N/A	W054
S084	E052	N/A	N/A	W054
S084	E100	N/A	N/A	W358
S084	E101	N/A	N/A	W359

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S084	E102	N/A	N/A	W363
S084	E104	N/A	N/A	W000
S084	E105	N/A	N/A	W000
S084	E106	N/A	N/A	W000
S084	E107	N/A	N/A	W000
S084	E108	N/A	N/A	W366
S084	E109	N/A	N/A	W000
S084	E110	N/A	N/A	W367
S084	E111	N/A	N/a	W368
S086	E001	“Format 41” on page 261	X'39'	Z008
S086	E001	“Format 41” on page 261	X'39'	W414
S086	E002	“Format 18” on page 256	X'39'	W414
S086	E002	“Format 18” on page 256	X'39'	Z008
S086	E003	“Format 18” on page 256	X'39'	W414
S086	E003	“Format 18” on page 256	X'39'	Z008
S086	E006	“Format 41” on page 261	X'39'	W414
S086	E006	“Format 41” on page 261	X'39'	Z008
S086	E007	“Format 41” on page 261	X'39'	W414
S086	E007	“Format 41” on page 261	X'39'	Z008
S086	E008	“Format 41” on page 261	X'39'	W414
S086	E008	“Format 41” on page 261	X'39'	Z008
S086	E009	“Format 41” on page 261	X'39'	W414
S086	E009	“Format 41” on page 261	X'39'	Z008
S086	E010	“Format 46” on page 261	X'39'	Z008
S086	E010	“Format 46” on page 261	X'39'	W414
S086	E011	“Format 46” on page 261	N/A	Z001
S086	E012	N/A	N/A	W000
S086	E012	“Format 46” on page 261	N/A	Z002
S086	E013	“Format 46” on page 261	N/A	Z001
S086	E014	“Format 46” on page 261	N/A	Z002
S086	E016	N/A	N/A	W414
S086	E016	“Format 46” on page 261	N/A	Z004
S086	E018	N/A	N/A	W414
S086	E019	N/A	N/A	W414
S086	E020	N/A	N/A	W414
S086	E020	N/A	N/A	W415
S086	E021	N/A	N/A	W414
S086	E021	N/A	N/A	W415
S086	E022	N/A	N/A	W414
S086	E022	N/A	N/A	W415

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S086	E023	N/A	N/A	W414
S086	E024	N/A	N/A	W414
S086	E025	N/A	N/A	W414
S086	E026	N/A	N/A	W414
S086	E027	N/A	N/A	W414
S086	E028	N/A	N/A	W414
S087	E001	“Format 41” on page 261	X'39'	W414
S087	E002	“Format 18” on page 256	X'39'	W414
S087	E003	“Format 18” on page 256	X'39'	W414
S087	E006	“Format 18” on page 256	X'39'	W414
S087	E007	“Format 41” on page 261	X'39'	W414
S087	E008	“Format 41” on page 261	X'39'	W414
S087	E009	“Format 41” on page 261	X'39'	W414
S087	E010	“Format 41” on page 261	X'39'	W414
S087	E018	N/A	N/A	W414
S087	E019	N/A	N/A	W414
S087	E020	N/A	N/A	W000
S087	E020	N/A	N/A	W415
S087	E021	N/A	N/A	W415
S087	E022	N/A	N/A	W415
S087	E023	N/A	N/A	W414
S087	E024	N/A	N/A	W414
S087	E025	N/A	N/A	W414
S087	E026	N/A	N/A	W414
S087	E027	N/A	N/A	W414
S087	E028	N/A	N/A	W414
S090	E100	N/A	N/A	W000
S090	E100	N/A	N/A	W403
S125	E001	“Format 52” on page 262	N/A	W315
S125	E008	“Format 20” on page 257	N/A	W766
S125	E008	“Format 20” on page 257	N/A	W766
S247	E040	N/A	N/A	W893
S247	E040	N/A	N/A	W894
S248	E001	“Format 75” on page 265	N/A	W993
S248	E002	“Format 75” on page 265	N/A	W993
S248	E003	“Format 75” on page 265	N/A	W993
S248	E004	“Format 75” on page 265	N/A	W993
S248	E005	“Format 75” on page 265	N/A	W993
S248	E006	“Format 75” on page 265	N/A	W993
S248	E007	“Format 75” on page 265	N/A	W993

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S248	E008	“Format 75” on page 265	N/A	W993
S248	E009	“Format 75” on page 265	N/A	W993
S248	E010	“Format 75” on page 265	N/A	W993
S248	E011	“Format 75” on page 265	N/A	W993
S248	E012	“Format 75” on page 265	N/A	W993
S248	E013	“Format 75” on page 265	N/A	W993
S248	E014	“Format 75” on page 265	N/A	W993
S248	E015	“Format 75” on page 265	N/A	W993
S248	E016	“Format 75” on page 265	N/A	W993
S248	E017	“Format 75” on page 265	N/A	W993
S248	E018	“Format 75” on page 265	N/A	W993
S248	E019	“Format 75” on page 265	N/A	W993
S248	E020	“Format 75” on page 265	N/A	W993
S248	E021	“Format 75” on page 265	N/A	W993
S248	E022	“Format 75” on page 265	N/A	W993
S249	E002	N/A	N/A	W688
S249	E003	N/A	N/A	W688
S249	E004	N/A	N/A	W688
S249	E005	N/A	N/A	W688
S249	E006	N/A	N/A	W688
S249	E255	N/A	N/A	W688
S250	E001	N/A	N/A	W065
S250	E002	N/A	N/A	W065
S250	E003	N/A	N/A	W065
S250	E004	N/A	N/A	W065
S250	E005	N/A	N/A	W065
S250	E006	N/A	N/A	W065
S250	E007	N/A	N/A	W065
S250	E008	N/A	N/A	W065
S250	E009	N/A	N/A	W065
S250	E010	N/A	N/A	W065
S250	E011	N/A	N/A	W065
S250	E012	N/A	N/A	W065
S250	E013	N/A	N/A	W065
S250	E014	N/A	N/A	W065
S250	E015	N/A	N/A	W065
S250	E016	N/A	N/A	W065
S250	E017	N/A	N/A	W065
S250	E018	N/A	N/A	W065
S250	E019	N/A	N/A	W065

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S250	E020	N/A	N/A	W065
S250	E021	N/A	N/A	W065
S250	E022	N/A	N/A	W065
S250	E023	N/A	N/A	W065
S250	E024	N/A	N/A	W065
S250	E025	N/A	N/A	W065
S250	E026	N/A	N/A	W065
S250	E027	N/A	N/A	W065
S250	E028	N/A	N/A	W065
S250	E029	N/A	N/A	W065
S250	E030	N/A	N/A	W065
S250	E031	N/A	N/A	W065
S250	E032	N/A	N/A	W065
S250	E033	N/A	N/A	W065
S250	E034	N/A	N/A	W065
S250	E035	N/A	N/A	W065
S250	E036	N/A	N/A	W065
S250	E255	N/A	N/A	W065
S251	E001	N/A	N/A	W689
S251	E002	N/A	N/A	W689
S251	E003	N/A	N/A	W689
S251	E004	N/A	N/A	W689
S251	E005	N/A	N/A	W689
S251	E006	N/A	N/A	W689
S251	E007	N/A	N/A	W689
S251	E008	N/A	N/A	W689
S251	E009	N/A	N/A	W689
S251	E010	N/A	N/A	W689
S251	E011	N/A	N/A	W689
S251	E012	N/A	N/A	W689
S251	E013	N/A	N/A	W689
S251	E014	N/A	N/A	W689
S251	E015	N/A	N/A	W689
S251	E016	N/A	N/A	W689
S251	E255	N/A	N/A	W689
S252	E001	N/A	N/A	W688
S252	E002	N/A	N/A	W688
S252	E003	N/A	N/A	W688
S252	E004	N/A	N/A	W688
S252	E005	N/A	N/A	W688

Table 15. B5 - System Events (Alerts: 1 = Master, 2 = Non-Master) (continued)

Source	Event	Unique data	Alert numbers	See message
S252	E006	N/A	N/A	W688
S252	E006	N/A	N/A	W688
S252	E006	N/A	N/A	W688
S252	E019	N/A	N/A	W688
S253	E001	N/A	N/A	W984
S253	E002	N/A	N/A	W985
S253	E003	“Format 62” on page 263	N/A	W986
S254	E002	N/A	N/A	W987
S254	E003	N/A	N/A	W987
S254	E004	N/A	N/A	W987
S254	E005	N/A	N/A	W987
S254	E007	N/A	N/A	W987
S255	E012	“Format 52” on page 262	N/A	W739

B6 - Application Events

This section of the System Log contains events generated by the application program. For information about this section, refer to the *Guide to Operations* for the application program you are running. The application *Guide to Operations*, however, might not list the application program events under section B6 of the System Log.

Unique Data Formats

The Unique Data is logged primarily for the IBM service personnel. This information can be used to create a history of events that have occurred and to provide detailed information about the events. Some of this information such as the return code, the file name, reason for the IPL or reason for the dump can be of use to the user. Other information such as device address, unit, command or device status are not intended to be of use to the user.

Format xx

```
rrrrrrrriiiisssssssnnwhere:

rrrrrrrr = POS data registers for the adapter
    iiii = POS ID for the adapter
sssssss = "SLOT"
      nn = Adapter slot number
```

Format 1

For a list of terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

```
DEVICE ID: xx   COMMAND SENT: xxxxxxxxxx     STATUS RECEIVED: xxxx
```

Format 2

```
DEVICE ID: xx   COMMAND: xxxx   STATUS: xx   LAST ERROR STATUS: xx
```

Format 3

```
DEVICE ID: xx   DATA: xxxxxxxxxxxxxxxxxxxxxxxx *aaaaaaaaaaaa*
```

Format 4

```
DEVICE ID: xx   COMMAND: xxxxxx
STATUS: xxxx    LAST ERROR STATUS: xxxx
```

Format 5

```
DEVICE ID: xx   COMMAND: xxxx
STATUS: xxxx    ADAPTER ERROR: xx
```

Format 6

```
DIRECTORY: {ADX_?PGM current}
           {ADX_?MNT maintenance}
           {ADX_?BUL backup}
           {c}
OPERATION: {Open (Keyed/Display)}
           {Close}
           {Read}
           {Write (Keyed)}
           {Delete (Keyed)}
           {Copy (Keyed/Sequential)}
           {Create (Keyed)}
           {Rename}
           {File Data}
           {c}
RC: {A description of the return code}
```

Format 7

```
{Bad return code from Application Services/Program interface error}
RC: {A description of the return code}
```

Format 8

```
INITIALIZATION STRING LENGTH: xxxx
FIRST EIGHT BYTES: xxxxxxxxxxxxxxxx    *aaaaaaaa*
DISPLAY RETURN CODE: xxxx
```

Format 9

```
PROGRAM: ccccccccccc        RETURN CODE: xxxxxxxx
RC: {A description of the return code}
```

Format 10

```
TABLE: ccccccccccc          RETURN CODE: xxxxxxxx
RC: {A description of the return code}
```

Format 11

For a list of terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

```
DEVICE ID: xx    UNIT: xx             LAST DEVICE CHANNEL MESSAGE: xxxx
COMMAND: xx      SYSTEM STATUS: xx    DEVICE STATUS: xx
```

Note: In addition, the following information is given for the scanner.

```
OPEN FLAGS: xx   STATUS FLAGS: xx
INCOMING DATA - LABEL TYPE: xxxx      CONTINUATION FLAG: xx
PREVIOUS DATA - LABEL TYPE: xxxx      CONTINUATION FLAG: xx
ACCUMULATION LABEL DATA LENGTH: xx    LABEL DATA CHECK FLAGS: xx
```

Format 12

Unique Data Formats

```
OPERATION: {DISPD}
           {POSF}
           {No reference for screen interface}
           {No visible fields}
           {c}
```

Format 13

```
OPERATION: {INITDM}
           {OPNDIS}
           {DISPD}
           {POSF}
           {NXTF}
           {PUTF}
           {CURS}
           {CLSDIS}
           {c}
```

Format 14

```
FUNCTION FLAGS: xxxx           :bbbbbbbbbbbbbbbb: (BINARY)
```

Format 15

```
ERROR DETECTED BY {PROGRAM/SYSTEM}
RC: {A description of the return code}
```

Format 16

```
TABLE: {Process}              OPERATION: {Get}
       {Environment}                     {Set}
       {Time & Date}                     {Lookup}
       {Storage}                         {c}
       {Pipe}
       {Disk File}
       {Disk}
       {Screen}
       {Physical Console}
       {Virtual Console}
       {Mouse}
       {Top Border}
       {Bottom Border}
       {Left Border}
       {Right Border}
       {System}
       {File Number}
       {System Defines}
       {Process Defines}
       {Command Environment}
       {Device}
       {Pathname}
       {Printer}
       {Serial}
       {DOS Clock Driver}
       {Null Device}
       {Port}
RC: {A description of the return code}
```

Format 17

```
OPERATION: {Bad screen interface return code}
           {Reference number is not valid}
           {Zero pointer}
           {Zero data length}
           {c}
```

Format 18

```
RETURN CODE: xxxxxxxx   {FILE: ADXCSCTF.DAT TERMINAL NUMBER: iii}
                        {FILE: ADXCSCDF.DAT DEVICE GROUP NAME: cccccccc}
RC: {A description of the return code}
```

Format 19

```
FUNCTION: {INIT}  RETURN CODE: xxxxxxxx
          {PCREATE}
          {PABORT}
          {GET}
          {SET}
          {LOOKUP}
          {OPEN}
          {CLOSE}
          {READ}
          {WRITE}
          {SEEK}
          {CREATE}
          {DELETE}
          {SPECIAL}
          {INSTALL}
          {DVRLOCK}
          {RENAME}
          {LOCK}
          {xx}
COMMAND TO I/O ADAPTER: xxxxxxxxxxxxxxxxx    *aaaaaaaaa*
RC: {A description of the return code}
```

Format 20

```
FUNCTION: {INIT}  FILE NAME: sssssssssss     RETURN CODE: xxxxxxxx
          {PCREATE}
          {PABORT}
          {GET}
          {SET}
          {LOOKUP}
          {OPEN}
          {CLOSE}
          {READ}
          {WRITE}
          {SEEK}
          {CREATE}
          {DELETE}
          {SPECIAL}
          {INSTALL}
          {DVRLOCK}
          {RENAME}
          {LOCK}
          {xx}
RC: {A description of the return code}
```

Format 21

```
FUNCTION: {GET}
          {SET}
          {LOOKUP}
          {CREATE}
          {DELETE}
          {OPEN}
          {CLOSE}
          {READ}
          {WRITE}
          {SPECIAL}
          {RENAME}
          {DEFINE}
          {xx}
RC: {A description of the return code}
```

Unique Data Formats

Format 22

```
ERROR: {Not a keyed file/file not found}
```

Format 23

Note: The following top line information is repeated for each type of trace. Terminal number is given only for a device channel trace.

```
TRACE TYPE: {Device channel}   {TERMINAL NUMBER: iii}
            {Host}             {CONTROLLER:       cc}
            {Disk}             {CONTROLLER:       cc}
            {Loop}             {CONTROLLER:       cc}
            {xx}
WRAP ALLOWED: {Yes/No}
```

Format 24

```
CAUSE: {Operator request}
       {Trace file full}
       {Error}
       {xxxx}
RC: {A description of the return code}
```

Format 25

```
TERMINAL NUMBER: {iii} CONTROLLER ID: cc
INTERVAL BETWEEN SAMPLES: iiiiiiiii  MILLISECONDS
```

Format 26

```
CAUSE: {Operator request}   TYPE: {Controller}
       {60 Samples}               {Terminal}
       {Error}                    {Controller and Terminal}
       {xxxx}                     {xxxx}
RC: {A description of the return code}
```

Format 27

```
TYPE: {File ADXCSONF.DAT was not found in ADX_SDT1}
      {Creation of minimum size copy of ADXCSONF.DAT failed}
RC: {A description of the return code}
```

Format 28

```
TYPE: {Normal/Background}     PROCESS ID: {xxxxxxxx}
```

Format 29

```
CAUSE:  {Application ended}   PROGRAM TYPE: {Normal}
        {Operator request}                  {Background}
        {Application request}               {xx}
        {xx}
RC: {A description of the return code}
```

Format 30

```
ACTION: {Request}   COMMAND: {Dump terminal storage}
        {Response}           {Load terminal storage}
        {Timeout}            {Set terminal date/time}
        {Send All}           {Load application}
        {xx}                 {Load application with DEBUG}
        {Local}              {Cancel application}
                             {Enable storage retention}
                             {Disable storage retention}
                             {Display terminal status}
                             {Set controller date/time}
                             {Controller IPL}
                             {Deactivate Master}
```

```
                              {Activate Master}
                              {Allow store loop backup}
                              {Prevent store loop backup}
                              {Resume store loop control}
                              {Deactivate File Server}
                              {Activate File Server}
                              {Send Master updates}
                              {Receive Master updates}
                              {Enable link}
                              {Disable link}
                              {Disable link with force}
                              {Enable Token Ring}
                              {Disable Token Ring}
                              {Display Link Status}
                              {Display Token Ring Status}
                              {xx}
                              {Disable Controller RAM disks}
                              {Enable Controller RAM disks}
NAME: {cccccccc}
ORIGIN: {LAN}   SOURCE CONTROLLER: cc   DESTINATION CONTROLLER: cc
        {Operator}
        {Application}
```

Format 31

```
IPL CAUSE: {System dump occurred}
           {Operator requested from Application/Terminal Services}
           {Program requested from Application/Terminal Services}
           {Hardware fault detected}
           {Program requested from store controller}
           {IPL because of software activation}
           {Normal}
           {xx Undefined}
DUMP CAUSE: {Operator requested from dump switch}
            {Operator requested from Application/Terminal Services}
            {System program check}
            {Requested from store controller}
            {Requested from Application/Terminal Services}
            {Application program check}
            {xx Undefined}
DIAGNOSTIC RESULT: xxxx (DUMP CAUSED BY MCPC)
MCPC VECTOR: {Device error exception}
             {Single step interrupt}
             {NMI interrupt}
             {Breakpoint interrupt}
             {INTO detected overflow exception}
             {BOUND range exceeded  exception}
             {Opcode that is not valid exception}
             {Processor extension not available exception}
             {Double exception detected}
             {Processor extension segment overrun interrupt}
             {Task state that is not valid segment}
             {Segment not present}
             {Stack segment overrun or not present}
             {General protection}
             {xx Undefined}
```

Note: If COMMAND indicates "Enable Controller RAM disks" or "Disable Controller RAM disks" the OPERATOR ID is listed. Otherwise, the file NAME is listed.

Format 32

Note: Up to 16 bytes of data is listed.

```
DATA LENGTH: xxxx
DATA: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx    *aaaaaaaaaaaaaaaa*
```

Unique Data Formats

Format 33

Note: Either IPL CAUSE or DUMP CAUSE is listed.

```
IPL CAUSE: {Controller was powered Off and On or a power line disturbance occurred}
           {System dump occurred}
           {Operator requested from Application/Terminal Services}
           {Program requested from Application/Terminal Services}
           {Hardware fault detected}
           {Operator or program requested controller storage load from System Menu
                 Initialization}
           {Program requested from store controller}
           {IPL because of software activation}
           {Block move error}
           {Normal}
           {Operator pressed CTRL, ALT and DEL}
           {xx Undefined}
DUMP CAUSE: {Operator requested from dump switch}
            {Operator requested from Application/Terminal Services}
            {System program check}
            {Requested from store controller}
            {Requested from Application/Terminal Services}
            {Application program check}
            {File system hang}
            {Program error on IBM Realtime Interface Co-Processor Multiport
                  adapter card 0}
            {Program error on IBM Realtime Interface Co-Processor Multiport
                  adapter card 1}
            {Program error on IBM X.25 Interface Co-Processor/2 adapter card 2}
            {Program error on IBM X.25 Interface Co-Processor/2 adapter card 3}
            {Operator requested controller dump}
            {Operator pressed CTRL, ALT and MINUS SIGN (numeric keypad)}
            {Application program requested controller dump}
            {xx}
```

Note: If IPL CAUSE is listed and it indicates “hardware fault detected”, the FAULT DESCRIPTION is listed. Otherwise, the DUMP COMPLETION CODE is listed.

When a channel check occurs on the store controller, the identity of the slot where the parity error occurred is not available.

```
DUMP COMPLETION CODE: {Unable to read boot record}
                      {Unable to read directory}
                      {No dump file in directory}
                      {Unable to read FAT}
                      {Not enough room in directory}
                      {Disk error while writing to dump file}
                      {Cannot find partition table}
                      {Normal}
                      {xx Undefined}
FAULT DESCRIPTION: {Memory parity error}
                   {Disk adapter failure}
                   {Channel check - slot number xx}
                   {Channel check}
                   {DMA bus timeout - arbitration xx}
                   {Watchdog timeout}
                   {Unknown}
DIAGNOSTIC CODE: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

Note: B5/S024/E027 may show UNIQUE DATA instead of DIAGNOSTIC CODE

Format 34

```
TYPE: {Signon}
      {Signoff}
      {Disconnect}
      {xx}
```

Format 35

```
OPERATION: {Bad data returned from screen interface}
           {No null from screen interface}
           {Bad data in screen routine input file}
           {c}
DATA LENGTH: xxxx    FIRST EIGHT BYTES: xxxxxxxxxxxxxxx  *aaaaaaaa*
```

Format 36

```
LIBRARY: {System}             ACTION: {Accept}    FILE NAME: ccccccccccc
         {IBM Application}            {Test}
         {User}                       {Cancel}
         {c}                          {c}
RETURN CODE: xxxxxxxx
RC: {Description of the Return Code}
```

Format 37

```
LINE NAME: cccccccc
```

Format 38

```
LAST STATUS RECEIVED: xxxx
```

Format 39

For a list of terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

```
DEVICE ID: xx
```

Format 40

```
TERMINAL NUMBER: iii
```

Note: The terminal number may not be valid if this error was logged due to a CRC error. In addition, the following special terminal numbers may be logged with this error:

12, 283 - An error occurred in a message from a terminal that was requesting backup.

12, 285 - An error occurred in a message from a terminal that has not yet been given a terminal number.

12, 286 - An error occurred in a message from the primary store controller instructing this store controller to exit backup.

Format 41

```
RETURN CODE: xxxxxxxx
RC: {Description of the Return Code}
```

Format 42

```
RC: {Description of the Return Code}
```

Format 43

```
HOST DATA: xxxxxxxxxxxxxxx     *aaaaaaaa*
```

Format 44

```
FILE NAME: ccccccccccc
```

Format 45

```
NAME: ccccccccccc
```

Format 46

```
TERMINAL NUMBER ENTERED: cccc
```

Format 47

```
OPERATOR ID: ccccccccc
```

Format 48

```
Acting Master/File Server: ccccccccc
```

Format 49

```
Subordinate: ccccccccc
```

Format 50

```
NODE NAME: ccccccccc    RETURN CODE: xxxxxxxx
```

Format 51

```
DATA ERRORS: iiiiiiii    UNDERRUNS: iiiiiiii    PARITY ERRORS: iiiiiiii
REASON: Statistics only.  Not necessarily an error.
```

Format 52

```
DISK ID: C
RETURN CODE: xxxxxxxx
NUMBER of BYTES: iiiiiiii
```

Format 53

```
FILE NAME: ccccccccccc
RC: {Description of the Return Code}
```

Format 54

```
CARD NUMBER: {0, 1, 2 or 3}
```

Format 55

```
CARD NUMBER: {0, 1, 2 or 3}
PAGE NUMBER: xx
PARITY REGISTER CONTENTS: xxxx
```

Format 56

```
AMOUNT OF SPACE REQUESTED: xxxxxxxx
RETURN CODE: xxxxxxxx
```

Format 57

```
SAVED FILE SIZE: xxxxxxxx
ACTUAL FILE SIZE: xxxxxxxx
FILE NAME: ccccccccccc
```

Format 58

```
LAST STATUS RECEIVED: xxxx    COMMAND: XX
REASON: {Description of the Event Number}
```

Format 59

```
FILE NAME: ccccccccccc
```

Format 60

```
STATUS CODE: xxxxxxxx
```

Format 61

```
MESSAGE RECEIVED: xxxxxxxxxxxxxxx
```

Format 62

```
FILE NAME: ccccccccccc
RETURN CODE: xxxxxxxx
RC: {Description of the Return Code}
```

Format 63

```
UNIQUE DATA: rrrrxxxxxxxxyyyyyyyyffffffffffffffff

             rrrr = Return Code from the OPEN operation.
         xxxxxxxx = Offset within the spool file of the START
                    of the data that was skipped.
         yyyyyyyy = Offset within the spool file of the END
                    of the data that was skipped.
 ffffffffffffffff = The first 8 characters of the file name
                    in the record being processed.
```

Format 64

```
UNIQUE DATA: 4010xxxxxxxxyyyyyyyyffffffffffffffff

             4010 = FILE NOT FOUND Return Code.
         xxxxxxxx = Offset within the spool file of the START
                    of the skipped record.
         yyyyyyyy = Offset within the spool file of the END
                    of the skipped record.
 ffffffffffffffff = The first 8 characters of the file name
                    in the record being processed.
```

Format 65

```
UNIQUE DATA: rrrr00000000000000000000000000000000

             rrrr = Return Code from the attempt to create
                    the despooling process.
```

Format 66

```
MOD ID: xxx {Module Identification:  For IBM Internal Use}
LOC ID: xxx {Location Identification:  For IBM Internal Use}
PROD ID: xxxx {Product Identification:  For IBM Internal Use}
RETURN CODE: xxxxxxxx
RC: {Description of the Return Code}
ERROR CODE: xxxx {For IBM Internal Use}
ERROR QUALIFIER 1: xxxx     ERROR QUALIFIER 2: xxxx
```

Format 67

```
RELATIVE SECTOR NUMBER: xxxx
RC: {Description of the Return Code}
UNIQUE DATA: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

Format 68

```
RETURN CODE: xxxxxxxx
FILE NAME: sssssssssss
SOURCE:
TIME FRAME:
```

Format 69

```
Configuration Record Name: ccccccccccc
RC: {A description of the return code}
FLAGS: xx xx xx xx
```

Unique Data Formats

Format 70

```
DEVICE ADDRESS:  xx   COMMAND: xxxx
PRINTER STATUS: xxxx  FISCAL STATUS: xxxx
RETURN CODE: xxxxxxxx
RC:    (A description of the return code)
```

Format 71

```
Excessive Line Errors, Card = xxxx Port = xxxx
```

Format 72

```
CAUSE: (Open failure)
       (Read failure)
       (Special failure)
       (Terminal Mismatch)
RC:    (A description of the return code)
```

Format 73

```
DEVICE ADDRESS: xx   COMMAND: xxxxxx
PRINTER DATA: xxxx   STATUS: xxxxxxxxxxxx
```

Format 74

```
DEVICE ADDRESS: xx          COMMAND SENT : xxxxxxxx
STATUS RECEIVED: xxxxxxxx   DATA RECEIVED: xxxxxxxxxxxx

For message W356 DATA RECEIVED contains the device information
response from the attached keyboard in the following format:

10ddff03ee

  dd = Device ID            X'01' = Retail Point-of-Sale Keyboard, or
                                    Retail Point-of-Sale Keyboard with
                                    Card Reader
                            X'02' = Retail Point-of-Sale Keyboard with Card
                                    Reader and Display
                            X'03' = Modifiable Layout Keyboard with Card Reader
                            X'04' = Retail Point-of-Sale Alphanumeric Keyboard
                                    with Card Reader
                            X'05' = ANPOS (DBCS)

  ff = Features
                            X'01' = Retail Point-of-Sale Keyboard,
                                    Retail Point-of-Sale Keyboard with Card
                                    Reader, or
                                    Retail Point-of-Sale Keyboard with Card
                                    Reader and Display
                            X'02' = Modifiable Layout Keyboard with Card Reader
                            X'03' = Retail Point-of-Sale Alphanumeric Keyboard
                                    with Card Reader
                            X'04' = ANPOS (DBCS)

  ee = EC level

For messages W357 and W404 DEVICE ADDRESS contains the device address
response from the attached touch keyboard in the following format:

  xx

  xx = 5C or 5D             The device address 5C indicates that the
                            touch screen is plugged into socket 4A.
                            When the touch screen is plugged into 4B,
                            9A, 9B, or 9C, the touch screen device
                            address is 5D.

For messages W357 and W404 COMMAND SENT contains the 4-byte command
```

```
last sent to the touch screen.

For messages W357 and W404 STATUS RECEIVED contains the 4 bytes of status
last received from the touch screen.

For messages W357 and W404 DATA RECEIVED contains the 6 bytes of data
last received from the touch screen.

For message W885 E009 Unique Data Format rrrrrrrriiiisssssssnn :

  rrrrrrrr = POS data registers for the adapter.
      iiii = POS ID for the adapter.
  ssssssss = "SLOT"
        nn = PC adapter slot number.
```

Format 75

```
FN: {File name of initialization file that cannot be executed}
RC: {Description of return code}
```

Format 76

```
FN: {Network operation in progress when error occurred}
RC: {Description of return code}
```

Format 77

```
IP ADDR: {Internet address of the unauthorized host in a dotted-decimal format}
```

Format 78

```
RC: {Description of return code}
CALL: xxxx
INFO: xxxxxxxxxxxx
```

Format 79

```
RC: {Description of return code}
MOD ID: xxx
LOC ID: xxxxxxx
```

Format 80

```
VBE VERSION: vvvv RESOLUTION: X=xxxx Y=yyyy
NUMBER OF COLORS: cccccccc
```

VBE is the Video BIOS Extension(VBE) version level on your system. For example, vvvv=0102 would be VBE 1.2. RESOLUTION and Number of COLORS describes the graphics mode in use on your system: For example, xxxx=1024, yyyy=768 and cccccccc=65536, would be a 1024x768-64K colors graphics mode.

Format 81

```
Format 81:
NODE: cc FILE NAME: ccccccccccccc
```

Format 82

```
Format 82:
RETURN CODE: xxxxxxxx OPERATOR ID: ccccccccc
```

Format 83

```
Format 83:
Directory Services could not be started.  The return code indicates the reason:

00000033 - C:\ADX_IDT1\ADXLDIFF.DAT is missing, or could not be accessed
00000034 - C:\ADX_IDT1\ADXLDIFF.DAT does not contain the "version" property
00000035 - C:\ADX_IDT1\ADXLDIFF.DAT does not contain the "root" property
```

```
00000036 - C:\ADX_IDT1\ADXLDIFF.DAT does not contain the "admin" property
00000037 - C:\ADX_IDT1\ADXLDIFF.DAT does not contain the "defaultpp" property
00000038 - C:\ADX_IDT1\ADXLDIFF.DAT does not contain the "security" property
00000039 - C:\ADX_IDT1\ADXLDIFF.DAT does not contain a security level
0000003A - C:\ADX_IDT1\ADXLDIFF.DAT contains an invalid security level
0000003B - C:\ADX_IDT1\ADXLDIFF.DAT does not contain a security strength
0000003C - C:\ADX_IDT1\ADXLDIFF.DAT contains an invalid security strength
0000003D - There was a failure running slapadd.
Usually this is the result of an invalid entry in C:\ADX_IDT1\ADXLDIFF.DAT.
See F:adxetc/logs/slapadd.log for additional information.
0000003E - C:\ADX_IDT1\ADXLDIFF.DAT does not contain the
end of configuration header indicator.
See C:\ADX_IDT1\ADXLDIFF.SMP for information on where to place this indicator.
00000064 through 00000096 - There was an internal error
805C4012 - C:\ADX_IDT1\ADXLDIFF.DAT length is zero, or greater than the maximum of 65536
805CXXXX - Internal error starting Directory Services
```

Alert Numbers

The operating system sends alerts for a subset of the system log entries. System alert numbers are sent when system events are logged and application programming support is required. The message severity codes do not affect which alerts are sent to the host.

The following table lists the system alert numbers and the system log section, source and event that they identify.

Table 16. System Alerts

Alert Number	System Log Section	Source	Event
X'01'	B1, B4	S013	E001
X'02'	B5	S013	E002
X'03'	B1	S030	E001
X'04'	B5	S030	E031
X'05'	B2, B5	S084	E004
X'06'	B5	S084	E031
X'06'	B5	S084	E032
X'07'	B2	S091	E001
X'07'	B2	S092	E001
X'07'	B2	S093	E001
X'08'	B3	S091	E014
X'08'	B3	S091	E015
X'08'	B3	S092	E014
X'08'	B3	S092	E015
X'08'	B3	S093	E014
X'08'	B3	S093	E015
X'0A'	B2	S114	E001
X'0B'	B3	S114	E014
X'0B'	B3	S114	E015
X'0B'	B3	S114	E016
X'0C'	B2	S114	E017
X'0E'	B1, B4	S008	E024
X'0E'	B1, B4	S009	E024

Table 16. System Alerts (continued)

Alert Number	System Log Section	Source	Event
X'0F'	B4	S008	E033
X'0F'	B4	S008	E036
X'0F'	B4	S009	E033
X'0F'	B4	S009	E036
X'11'	B4	S008	E035
X'11'	B4	S009	E035
X'12'	B5	S008	E037
X'12'	B5	S009	E037
X'13'	B1, B4	S008	E024
X'13'	B1, B4	S009	E024
X'14'	B4	S008	E033
X'14'	B4	S008	E036
X'14'	B4	S009	E033
X'14'	B4	S009	E036
X'16'	B4	S008	E035
X'16'	B4	S009	E035
X'17'	B5	S008	E037
X'17'	B5	S009	E037
X'18'	B1	S030	E001
X'19'	B5	S030	E031
X'1A'	B4	S004	E012
X'1C'	B4, B5	S004	E014
X'1D'	B1	S004	E017
X'1E'	B4	S004	E018
X'1F'	B1	S004	E021
X'1F'	B4	S004	E019
X'20'	B1	S004	E022
X'20'	B4	S004	E020
X'22'	B4	S004	E012
X'24'	B4, B5	S004	E014
X'25'	B1	S004	E017
X'26'	B4	S004	E018
X'27'	B1	S004	E021
X'27'	B4	S004	E019
X'28'	B1	S004	E022
X'28'	B4	S004	E020
X'2A'	B4	S014	E002
X'2B'	B5	S014	E003
X'2C'	B4	S014	E004
X'2D'	B4	S017	E001

Table 16. System Alerts (continued)

Alert Number	System Log Section	Source	Event
X'2D'	B4	S017	E002
X'2D'	B4	S017	E003
X'2D'	B4	S017	E004
X'2D'	B4	S017	E005
X'2E'	B4	S017	E001
X'2E'	B4	S017	E002
X'2E'	B4	S017	E003
X'2E'	B4	S017	E004
X'2E'	B4	S017	E005
X'2F'	B2	S102	E001
X'2F'	B2	S102	E021
X'2F'	B2	S104	E001
X'2F'	B2	S122	E001
X'2F'	B2	S124	E001
X'2F'	B3	S102	E020
X'2F'	B3	S102	E022
X'2F'	B3	S104	E020
X'2F'	B3	S104	E021
X'2F'	B3	S104	E022
X'2F'	B3	S122	E020
X'2F'	B3	S122	E021
X'2F'	B3	S122	E022
X'2F'	B3	S124	E020
X'2F'	B3	S124	E021
X'2F'	B3, B4	S124	E022
X'30'	B3	S102	E014
X'30'	B3	S102	E015
X'30'	B3	S102	E016
X'30'	B3	S102	E017
X'30'	B3	S104	E014
X'30'	B3	S104	E015
X'30'	B3	S104	E016
X'30'	B3	S104	E017
X'30'	B3	S122	E014
X'30'	B3	S122	E015
X'30'	B3	S122	E016
X'30'	B3	S122	E017
X'30'	B3	S124	E014
X'30'	B3, B4	S124	E015
X'30'	B3	S124	E016

Table 16. System Alerts (continued)

Alert Number	System Log Section	Source	Event
X'30'	B3	S124	E017
X'31'	B4	S004	E023
X'32'	B4	S004	E024
X'32'	B4	S004	E025
X'32'	B4	S004	E026
X'32'	B4	S004	E027
X'33'	B4	S004	E023
X'34'	B4	S004	E024
X'34'	B4	S004	E025
X'34'	B4	S004	E026
X'34'	B4	S004	E027
X'35'	B2, B3	S090	E001
X'35'	B2, B3	S090	E041
X'36'	B3	S090	E015
X'36'	B3	S090	E055
X'37'	B2	S095	E001
X'37'	B2	S096	E001
X'37'	B2	S097	E001
X'38'	B3	S096	E014
X'38'	B3	S096	E015
X'38'	B3	S096	E016
X'38'	B3	S097	E014
X'38'	B3	S097	E016
X'39'	B5	S086	E001
X'39'	B5	S086	E002
X'39'	B5	S086	E003
X'39'	B5	S086	E006
X'39'	B5	S086	E007
X'39'	B5	S086	E008
X'39'	B5	S086	E009
X'39'	B5	S086	E010
X'39'	B5	S087	E001
X'39'	B5	S087	E002
X'39'	B5	S087	E003
X'39'	B5	S087	E006
X'39'	B5	S087	E007
X'39'	B5	S087	E008
X'39'	B5	S087	E009
X'39'	B5	S087	E010
X'3A'	B5	S030	E033

Table 16. System Alerts (continued)

Alert Number	System Log Section	Source	Event
X'3A'	B5	S030	E036
X'3B'	B5	S030	E033
X'3B'	B5	S030	E036
X'3C'	B5	S084	E033
X'3C'	B5	S084	E034
X'3C'	B5	S084	E035
X'3C'	B5	S084	E036
X'3C'	B5	S084	E045
X'3C'	B5	S084	E046
X'3D'	B2	S082	E001
X'3D'	B3	S082	E024
X'3E'	B2	S118	E001
X'3F'	B3	S118	E020
X'40'	B2	S098	E001
X'41'	B3	S098	E014
X'41'	B3	S098	E015
X'41'	B3	S098	E016
X'42'	B5	S064	E001
X'43'	B5	S064	E009
X'44'	B5	S064	E011
X'45'	B5	S064	E012
X'46'	B5	S070	E001
X'46'	B5	S070	E002
X'46'	B5	S070	E003
X'46'	B5	S070	E007
X'47'	B5	S070	E004
X'47'	B5	S070	E005
X'4A'	B4	S012	E001
X'4A'	B4	S012	E002
X'4A'	B4	S012	E003
X'4B'	B4	S012	E004
X'4B'	B4	S012	E005
X'4C'	B4	S012	E001
X'4C'	B4	S012	E002
X'4C'	B4	S012	E003
X'4D'	B4	S012	E004
X'4D'	B4	S012	E005
X'4E'	B4	S016	E004
X'4F'	B4	S016	E004
X'50'	B4	S015	E004

Table 16. System Alerts (continued)

Alert Number	System Log Section	Source	Event
X'51'	B4	S015	E005
X'52'	B4	S015	E011
X'52'	B4	S015	E012
X'53'	B4	S015	E004
X'54'	B4	S015	E005
X'55'	B4	S015	E011
X'55'	B4	S015	E012
X'56'	B4	S015	E009
X'56'	B4	S015	E010
X'57'	B4	S015	E009
X'57'	B4	S015	E010
X'58'	B1	S015	E002
X'58'	B1	S015	E003
X'59'	B4	S015	E007
X'5A'	B1	S015	E002
X'5A'	B1	S015	E003
X'5B'	B4	S015	E007
X'5C'	B2	S094	E001
X'5D'	B3	S094	E014
X'5D'	B3	S094	E015
X'5E'	B1	S011	E002
X'5E'	B1	S011	E003
X'5E'	B1	S050	E002
X'5E'	B1	S050	E003
X'5F'	B4	S011	E004
X'5F'	B4	S050	E004
X'60'	B4	S011	E005
X'60'	B4	S050	E005
X'61'	B4	S011	E007
X'61'	B4	S050	E007
X'62'	B4	S011	E009
X'62'	B4	S011	E010
X'62'	B4	S050	E009
X'62'	B4	S050	E010
X'63'	B1	S011	E002
X'63'	B1	S011	E003
X'63'	B1	S050	E002
X'63'	B1	S050	E003
X'64'	B4	S011	E004
X'64'	B4	S050	E004

Table 16. System Alerts (continued)

Alert Number	System Log Section	Source	Event
X'65'	B4	S011	E005
X'65'	B4	S050	E005
X'66'	B4	S011	E007
X'66'	B4	S050	E007
X'67'	B4	S011	E009
X'67'	B4	S011	E010
X'67'	B4	S050	E009
X'67'	B4	S050	E010
X'68'	B5	S024	E006
X'69'	B5	S024	E006
X'6A'	B2	S108	E001
X'6A'	B2	S109	E001
X'6B'	B3	S108	E020
X'6C'	B3	S108	E014
X'6C'	B3	S108	E015
X'6C'	B3	S109	E014
X'6C'	B3	S109	E015
X'6D'	B4	S010	E001
X'6D'	B1, B4	S010	E002
X'6D'	B1, B4	S010	E003
X'6D'	B4	S051	E001
X'6D'	B4	S051	E002
X'6D'	B4	S051	E003
X'6E'	B4	S010	E004
X'6E'	B4	S010	E005
X'6F'	B4	S010	E006
X'6F'	B4	S010	E007
X'6F'	B4	S010	E008
X'6F'	B4	S051	E006
X'6F'	B4	S051	E007
X'6F'	B4	S051	E008
X'70'	B4	S010	E001
X'70'	B1, B4	S010	E002
X'70'	B1, B4	S010	E003
X'70'	B4	S051	E001
X'70'	B4	S051	E002
X'70'	B4	S051	E003
X'71'	B4	S010	E004
X'71'	B4	S010	E005
X'72'	B4	S010	E006

Table 16. System Alerts (continued)

Alert Number	System Log Section	Source	Event
X'72'	B4	S010	E007
X'72'	B4	S010	E008
X'72'	B4	S051	E006
X'72'	B4	S051	E007
X'72'	B4	S051	E008
X'A6'	B1	S052	E003
X'A7'	B1	S052	E003
X'A8'	B1	S052	E004
X'A9'	B1	S052	E004
X'AA'	B5	S021	E001
X'AB'	B1	S021	E003
X'AC'	B5	S021	E001
X'AD'	B1	S021	E003
X'AE'	B5	S020	E004
X'AE'	B5	S020	E005
X'AE'	B5	S020	E006
X'AE'	B5	S020	E007
X'AE'	B5	S020	E046
X'AE'	B5	S020	E047
X'AE'	B5	S020	E048
X'AE'	B5	S020	E049
X'AE'	B5	S020	E050
X'AF'	B5	S020	E004
X'AF'	B5	S020	E005
X'AF'	B5	S020	E006
X'AF'	B5	S020	E007
X'AF'	B5	S020	E046
X'AF'	B5	S020	E047
X'AF'	B5	S020	E048
X'AF'	B5	S020	E049
X'AF'	B5	S020	E050
X'B0'	B5	S020	E029
X'B1'	B5	S020	E029
X'B2'	B5	S020	E030
X'B3'	B5	S020	E030
X'B4'	B5	S020	E055
X'B5'	B5	S020	E055
X'B6'	B5	S020	E056
X'B7'	B5	S020	E056
X'B8'	B5	S020	E076

Table 16. System Alerts (continued)

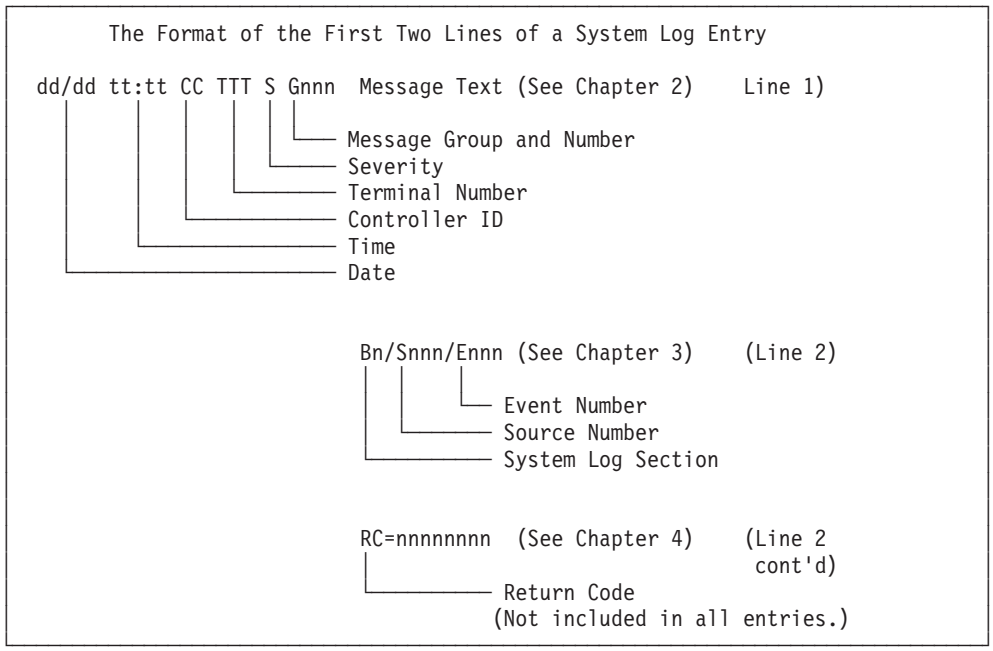
Alert Number	System Log Section	Source	Event
X'B8'	B5	S020	E077
X'B9'	B5	S020	E076
X'B9'	B5	S020	E077
X'BA'	B4	S015	E066
X'BB'	B4	S015	E066
X'BC'	B4	S015	E068
X'BD'	B4	S015	E068
X'BE'	B4	S006	E004
X'BF'	B4	S006	E004
X'C0'	B4	S006	E005
X'C1'	B4	S006	E005
X'C2'	B4	S006	E006
X'C3'	B4	S006	E006
X'C4'	B5	S008	E039
X'C4'	B5	S009	E039
X'C5'	B5	S008	E039
X'C5'	B5	S009	E039
X'C6'	B5	S008	E038
X'C6'	B5	S009	E038
X'C7'	B5	S008	E038
X'C7'	B5	S009	E038
X'C8'	B4	S008	E040
X'C8'	B4	S009	E040
X'C9'	B4	S008	E040
X'C9'	B4	S009	E040
X'CA'	B5	S008	E041
X'CA'	B5	S009	E041
X'CB'	B5	S008	E041
X'CB'	B5	S009	E041
X'CC'	B4	S008	E042
X'CC'	B4	S009	E042
X'CD'	B4	S008	E042
X'CD'	B4	S009	E042
X'D0'	B5	S024	E028
X'D1'	B5	S024	E030

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This chapter contains information about the return code (RC=***xxxxxxxx***) in system messages.

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Return codes

This table lists the return codes issued by the operating system.

Return Code Missing?:

If your return code:
- ERRN from BASIC application
- Return code from controller C application
- Return code from controller COBOL application
- adx_errn from terminal C application

is **not** in this table:
- Nonsystem errors associated with specific 4690 functions are documented with those functions in the *IBM 4690 OS: Programming Guide*.
- When adx_errn is positive, the terminal C API has trapped an error. These errors are documented in the *IBM 4690 OS: Programming Guide*.
- When ERRN is positive, the BASIC run time has trapped an error. These errors are documented in the *4680 BASIC Language Reference*.
- If the first two values of the return code are not 80, replace them with 80 and search for your message again.
- For additional 4690 system error return codes, see “All Other Return Codes” on page 340.

In this table, *x* indicates any possible character.

Return code	ERR code	Description
80000000	*xx*	Invalid parameter — A file specification greater than 12 characters was entered. Reenter your command with a file specification of 12 characters or less.
80000001	*xx*	Invalid parameter — An invalid logical name definition was specified. Logical names must be one word and an equal (=) sign must be used to delineate logical and physical definition values. For example: DEFINE logical_name = value.

Return code	ERR code	Description
80000002	*xx*	Invalid option — An invalid option was specified on the command line. Valid options are: D - Delete logical name, S - System level, N - Display logical name(s).
80000003	*xx*	Invalid parameter — An invalid parameter was specified on the command line. Only logical names can be specified with the DELETE option.
80000004	*xx*	Invalid option — Options that conflict with each other were specified. The DELETE and LIST options cannot be used on the same command line.
80000005	*xx*	Invalid logical name — The logical name specified is too long. Logical names must be one word and less than 9 characters in length.
80000006	*xx*	Invalid logical name — An attempt was made to specify more than one word for the logical name. Logical names must be one word and less than 9 characters long.
80000007	*xx*	Logical name missing — The DELETE option requires you to enter a logical name value. Specify a logical name when using the DELETE option.
80000008	*xx*	Invalid logical name — The logical name specified is illegal or recursive. Reenter your command with a valid logical name
80000009	*xx*	Memory error — There is not enough memory available to complete this operation. Other programs may be using memory that could be made available. Try the operation again once memory has been freed.
8000000A	*xx*	Invalid option — An invalid option was specified. Valid COPY command line options are: Copy source destination -option:, + - Combine files, A - Copy ASCII (Text) files. -A is the default for combining files, B - Copy binary files. -B is the default for copying files, S - Copy hidden and system files, V - Copy and verify sectors are properly written.
8000000B	*xx*	Invalid date — The date specified is invalid. Make sure you use valid separators and the values for month, day, and year are within correct ranges. Valid separators for DATE are: hyphens (-) or (/).
8000000C	*xx*	Invalid parameter — The drive specified is not a hard disk drive. For BACKUP, drive specifications must be in the order of: hard disk drive, diskette drive. For RESTORE, drive specifications must be in the order of: diskette drive, hard disk drive.
8000000D	*xx*	File error — The file(s) specified could not be found. You may have specified a file that does not exist or gave an incorrect path.
8000000E	*xx*	Invalid parameter — An invalid parameter was specified. The parameter is either missing, is an invalid drive specification, or is an invalid name. Make sure you entered the correct device name(s).
8000000F	*xx*	Invalid option — An attempt was made to copy a file to itself. Copy your file to a different location or give the destination file a different name.
80000010	*xx*	Incorrect use of wildcards — The caret (^) wildcard cannot be used in a copy operation. The caret (^) is not supported by COPY. Valid wildcards supported by COPY are: asterisk (*) and question mark (?).
80000011	*xx*	Incorrect use of wildcards — Full FlexOS wildcarding is not supported by the copy operation. Simplify your copy wildcard request and try again.
80000012	*xx*	Incorrect use of wildcards — The names used are not compatible for wildcard specifications. Simplify your copy wildcard request and try again.
80000013	*xx*	Incorrect use of wildcards — Wildcards cannot be used in the device name. Device names must be explicitly stated on the command line.
80000014	*xx*	Record size mismatch — The record sizes of the files do not match. You cannot combine files with different record sizes.
80000015	*xx*	File error — The file specification cannot be found. Make sure you specified the correct device, path and file names.
80000016	*xx*	Buffer too small — A single record will not fit in the available buffer space. Other programs may be using available memory. Try again later.
80000017	*xx*	Rename error — An error occurred renaming the temporary file. Check the files attributes and make sure you have privileged access to the file being copied.
80000018	*xx*	Invalid parameter — The device name specified is invalid. A device name must be 10 characters or less.
80000019	*xx*	Invalid parameter — The path name specified is too long. A compete path from the root directory to the level you want to access must have a shorter length. If you use logical names in your path, the original 'long form' must have a shorter length.

Return code	ERR code	Description
8000001A	*xx*	Invalid parameter — The file name you specified is too long. A file name without extension must be 8 characters or less.
8000001B	*xx*	Invalid parameter — The file extension name specified is too long. A file extension name must be 3 characters or less.
8000001C	*xx*	Verification error — The destination file did not pass the verify test. Retry the operation.
8000001D	*xx*	Disk error — The diskette inserted in the drive is not a backup diskette. Insert a backup diskette before continuing.
8000001E	*xx*	Parameter error — An invalid number of parameters was specified. FlexOS expected a file specification. Reenter your command.
8000001F	*xx*	Parameter error — An invalid number of file specifications was specified on the command line. The command accepts only one file specification.
80000020	*xx*	Invalid option — Wildcards cannot be used with the command. Reenter your command with a single file specification.
80000021	*xx*	Invalid parameter — An invalid number of file specifications was specified on the command line. The command accepts two file specifications.
80000022	*xx*	Disks error — The formats of the diskettes are incompatible. Make sure the diskettes you compare are of the same type.
80000023	*xx*	Device error — The device type specified is not a diskette drive. Reenter your command using diskette drive identifiers.
80000024	*xx*	Device error — The device type specified is not a diskette drive. Reenter your command using diskette drive identifiers."
80000025	*xx*	Invalid parameter — An invalid parameter was specified. The command does not have command line options.
80000026	*xx*	Invalid option — The -C option was specified with an invalid value. -C values must be a power of 2, in the range 1 to 128. Examples: -c1 -c2 -c4 -c8...
80000027	*xx*	Invalid option — The -C option was specified while attempting to format a diskette. The -C option can only be used when formatting the hard disk drives.
80000028	*xx*	Option value too small — A cluster size (-C) too small for this disk was specified. Retry with a larger -C value, or use a smaller hard disk drive partition.
80000029	*xx*	Invalid option — An invalid hard disk drive format option was specified. The options, P, 1, and 8, are diskette specific.
8000002A	*xx*	Bad system track, aborting — A Bad track was found in the system area. Format is unable to continue. Either choose another disk (if diskette) or repartition (if hard disk drive).
8000002B	*xx*	Device not found — The device specified was not found. Make sure you specified the correct device name.
8000002C	*xx*	Bad device type — The device specified is not a Serial Device. Make sure you specified the correct device name.
8000002D	*xx*	Internal error — FlexOS is presently unable to perform the command. This may be a temporary condition. Reenter the command.
8000002E	*xx*	Device error — The device has not been completely installed. Try the command again. If this message appears again, then the Device cannot be configured at this time.
8000002F	*xx*	Invalid Baud Rate — The Baud Rate indicator specified is invalid. Valid Baud Rates indicators are: 50, 75, 110, 134.5, 150, 300, 600, 1200, 1800, 2000, 2400, 3600, 7200, 9600 or 19 200.
80000030	*xx*	Invalid Word Length — The Word Length indicator specified is invalid. Valid Word Length (bits per word) indicators are: 5, 6, 7, or 8.
80000031	*xx*	Invalid Parity Parameter — The Parity indicator specified is invalid. Valid type of Parity indicators are: EVEN (or E), ODD (or O), NONE (or N).
80000032	*xx*	Invalid Stop Bit Parameter — The Stop Bit indicator specified is invalid. Valid Stop Bit (number of stop bits to use) indicators are: 1, 1.5 or 2.
80000033	*xx*	Invalid Protocol Parameter — The Protocol indicator specified is invalid. Valid Protocol (handshaking) indicators are: DTR/DSR (or D), XON/XOFF (or X), NONE (or N).
80000034	*xx*	Invalid Parameter — Too many parameters were specified on the command line. Valid command line parameters consist of a serial device name, Baud Rate, Word Length, Parity, # of Stop Bits, and Protocol.

Return code	ERR code	Description
80000035	*xx*	Disk Error — You are attempting to install FlexOS on a nonbootable disk. The destination disk is not formatted to contain operating system files.
80000036	*xx*	Read Error — An error occurred reading the FlexOS load file. The internal format of is incorrect. Check the contents of the file.
80000037	*xx*	Install Error — An attempt was made to install FlexOS on the source device. FlexOS can only be installed on the same device when the source device contains removable media (diskette drive).
80000038	*xx*	Invalid Parameter — The device specified is not a disk device name. Reenter your command using a valid disk device name.
80000039	*xx*	Write Error — The space for the FlexOS loader on drive is occupied. The FlexOS loader must reside at the very start of the file area on the drive. Delete any unnecessary files and try again.
8000003A	*xx*	Open Error — The console file could not be opened. Another application may own the console exclusively.
8000003B	*xx*	Invalid Option — An invalid option was specified.
8000003C	*xx*	Read Error — A line read was too long. Lines must be 256 characters or less. Use a text editor to split lines longer than 256 characters.
8000003D	*xx*	Read Error — The file read by SORT contains too many lines of text.
8000003E	*xx*	Invalid Name — A volume label greater than 11 characters was specified. By design, the volume label must be 11 characters or less.
8000003F	*xx*	Invalid Option — An invalid file protection option was specified. Valid file protection options are ON and OFF.
80000040	*xx*	Volume Label Required — To set file protection, a volume label must be present on your disk. First write a volume label on your disk with the 'L' option, or specify a volume label when setting protection (use -L -P).
80000041	*xx*	Invalid Option — An invalid MODE option was specified. Valid MODE options are ON and OFF.
80000042	*xx*	Volume Label Required — To set the disk mode, a volume label must be present on your disk. First write a volume label on your disk with the 'L' option, or specify a volume label when setting the disk mode (use -L -M).
80000043	*xx*	Password Could Not be Set — You do not have sufficient privileges to perform the operation. Only a system manager can set someone else's password.
80000044	*xx*	Invalid User Name — The user name specified is not in the user file. Make sure the name is correct.
80000045	*xx*	Invalid Password — The old password entered was not correct. Make sure the old password is typed correctly.
80000046	*xx*	New Password Confirmation Failed — The new password failed the confirmation test. Make sure the new password is typed correctly.
80000047	*xx*	Invalid Option — An invalid command line option separator was specified.
80000048	*xx*	Invalid Parameter — An invalid parameter was specified. A decimal number was expected.
80000049	*xx*	Invalid Parameter — An invalid parameter was specified. The maximum number of decimal digits allowed is 10.
8000004A	*xx*	Process Not Found — No processes were found to view. Try again later after other programs have begun processing.
8000004B	*xx*	Syntax Error — The CONDITION parameter was missing. The IF command syntax should be in the form of: IF CONDITION COMMAND.
8000004C	*xx*	Syntax Error — The COMMAND parameter was missing. The IF command syntax should be in the form of: IF CONDITION COMMAND.
8000004D	*xx*	Syntax Error — The IF statement is nested too deeply. IF/ELSE commands are limited to 10 levels of nesting.
8000004E	*xx*	Syntax Error — The end nesting bracket '}' was detected without a beginning nesting bracket '{'. The IF/ELSE command syntax should be in the form of: IF CONDITION {} ELSE {}
8000004F	*xx*	Syntax Error — An error occurred parsing the IF statement. Nested IFs cannot be executed from within a FOR loop.

Return code	ERR code	Description
80000050	*xx*	Syntax Error — The preceding IF condition command was missing. ELSE commands must follow IF commands in the form of: IF CONDITION COMMAND ELSE COMMAND
80000051	*xx*	Syntax Error — The COMMAND parameter was missing. The ELSE command syntax should be in the form of: ELSE COMMAND
80000052	*xx*	Syntax Error — The ELSE IF command syntax is invalid. IF cannot follow the ELSE command on the same line
80000053	*xx*	Syntax Error — The VARIABLE parameter is missing. The FOR command syntax should be in the form of: for VARIABLE in (set) do command
80000054	*xx*	Syntax Error — The IN keyword is parameter is missing. The FOR command syntax should be in the form of: for variable IN (set) do command
80000055	*xx*	Syntax Error — The SET '()' parameter is missing. The FOR command syntax should be in the form of: for variable in (SET) do command
80000056	*xx*	Syntax Error — The DO keyword parameter is missing. The FOR command syntax should be in the form of: for variable in (set) DO command
80000057	*xx*	Syntax Error — The COMMAND parameter is missing. The FOR command syntax should be in the form of: for variable in (set) do COMMAND
80000058	*xx*	Syntax Error — The GOTO label is missing. The GOTO command syntax should be in the form of: GOTO label :label
80000059	*xx*	Standard I/O Error — The STDIN parameter was previously redirected. STDIN can be redirected to only one place at a time.
8000005A	*xx*	Standard I/O Error — The STDIN parameter was missing. Make sure the STDIN parameter is specified.
8000005B	*xx*	Standard I/O Error — The STDERR parameter was previously redirected. STDERR can be redirected to only one place at a time.
8000005C	*xx*	Standard I/O Error — The STDERR parameter was missing. Make sure the STDERR parameter is specified.
8000005D	*xx*	Standard I/O Error — The STDOUT parameter was previously redirected. STDOUT can be redirected to only one place at a time.
8000005E	*xx*	Standard I/O Error — The STDOUT parameter was missing. Make sure the STDOUT parameter is specified.
8000005F	*xx*	Standard I/O Error — The receiving command parameter was missing. Two or more commands are required for a pipe line.
80000060	*xx*	Invalid Parameter — The command parameter was invalid. Valid SHELL command line parameters are: C - Load a temporary secondary shell, P - Load a permanent secondary shell
80000061	*xx*	Invalid Parameter — You specified an invalid option. Valid options for BREAK are ON and OFF.
80000062	*xx*	Invalid Parameter — You specified an invalid directory specification. CHDIR can only be used with directories.
80000063	*xx*	Directory Not Found — The directory was not found. Make sure you specified the correct device, path and file name.
80000064	*xx*	Current Directory is Invalid — The current directory no longer exists. The diskette is new, or the path has been removed. Use CHDIR to get to the root directory.
80000065	*xx*	Invalid Parameter — An invalid option was specified. Valid options for VERIFY are ON and OFF.
80000066	*xx*	Invalid Parameter — An invalid number of parameters was specified. ERASE expected a file specification to be entered on the command line
80000067	*xx*	Invalid Option — An invalid option was specified for the ERASE command. Valid option for ERASE is: Q - Query whether or not to erase a file.
80000068	*xx*	Invalid Device Name — A device specification must be 32 characters or less. Reenter your command with a valid drive specification.
80000069	*xx*	Invalid Option — You specified an invalid option for the CANCEL command. Valid option for CANCEL is: F# - Cancel the process(es) using Family ID #.
8000006A	*xx*	Invalid Parameter — An invalid number of parameters was specified. CANCEL expected a Process ID or Process Name. Reenter your command.

Return code	ERR code	Description
8000006B	*xx*	Invalid Parameter — An invalid parameter was specified. The Family ID must be a decimal number less than 7 digits.
8000006C	*xx*	Process Not Canceled — The process was not canceled immediately. The process may have trapped your request and will continue running until completion or until your request can be serviced.
8000006D	*xx*	Process Not Found — The Process ID for the specified process was not found. Make sure you specified the correct Process ID or Process Name.
8000006E	*xx*	Process Not Found — The specified process name could not be found on the window. Make sure you specified the correct process name and Window number.
8000006F	*xx*	Invalid Parameter — You specified an invalid number of parameters. The command expected a directory name. Reenter your command.
80000070	*xx*	Create Error — An error occurred creating the file. The path does not exist. Make sure you spelled the path name correctly.
80000071	*xx*	Create Error — An error occurred creating the file. You specified an invalid path name. You either specified too many characters, your path name is too long, or used invalid characters in your path name.
80000072	*xx*	Search Error — An error occurred locating the directory. The directory does not exist. Make sure you spelled the directory name correctly.
80000073	*xx*	Delete Error — An error occurred removing the directory. You cannot delete the default directory.
80000074	*xx*	Delete Error — An error occurred deleting the file. You specified an invalid file specification. You either specified too many characters or used invalid characters in your file specification.
80000075	*xx*	Invalid Parameter — An invalid drive specification was specified. Only the letters A - P may be used as drive names for the ASSIGN command.
80000076	*xx*	Invalid Parameter — An invalid parameter was specified. ASSIGN expects an equal sign (=) after the disk device name.
80000077	*xx*	Invalid Parameter — An invalid parameter was specified. FlexOS expected a switch character. Reenter your command.
80000078	*xx*	Invalid Option — An invalid option was specified. Valid options for SECURITY are: W - Set World Access, G - Set Group Access, O - Set Owner Access.
80000079	*xx*	Invalid Parameter — An invalid parameter was specified. SECURITY expected an equal sign (=). Reenter your command.
8000007A	*xx*	Invalid Parameter — An invalid option argument parameter was specified. Valid option arguments for SECURITY are RWED.
8000007B	*xx*	File Not Found — An error occurred locating the command. Make sure the command name is spelled correctly or the command is located within your path.
8000007C	*xx*	Device Not Found — An error occurred locating the device. Make sure the device name is spelled correctly.
8000007D	*xx*	Invalid Device — An error occurred setting the default device. The default device can only be set to a disk device.
8000007E	*xx*	Invalid File Format — The format of the file is invalid. Check the contents of the file. Make sure the file is less than 100 text lines, each line occupies a command 1-127 characters in length, and the last line(s) are not blank.
8000007F	*xx*	Invalid Value — The value specified on the command line is invalid. The Command Line History Buffer can consist of 1-99 command levels.
80000080	*xx*	No Find Element Given — The find option was specified without specifying a search string. Reenter your command with a search string.
80000081	*xx*	Invalid Option Entered — An invalid command line option was specified. Type HISTORY -H or -?, for a list of valid command line options.
80000082	*xx*	Invalid Parameter — The drive you specified is not removable disk media. For BACKUP, drive specifications must be in the order of: hard disk drive: diskette drive:. For RESTORE, drive specifications must be in the order of: diskette drive: hard disk drive:.
80000083	*xx*	Insufficient Access Privilege — You do not have sufficient access privilege to use this utility. Only a Super-User or System Administrator can use this utility.

Return code	ERR code	Description
80000084	*xx*	Open error — The file could not be opened. Check to make sure the file is not set to READ-ONLY.
80000085	*xx*	Invalid File Format — The format of your user.tab file is invalid. Check the contents of your user.tab file. Make sure the file has proper comma placement, all required fields exist, and not too many fields have been specified.
80000086	*xx*	Write Error — An error occurred writing to the file. Check the attributes of the file. Verify the file is not set to read-only or that the file is not currently locked by another user.
80000087	*xx*	No File(s) Found — Either no files were found that require a backup (-M option) or no files exist in your directory path. Make sure you specified the correct device, path and file names.
80000088	*xx*	Syntax Error — The range parameter is missing. Valid range entries for QUERY are (Y-N [Errorlevel return values: Y=1, N=0]:) 0-9 (Errorlevel return is numeric value entered), A-Z (Errorlevel return is A=0, B=1, C=2, etc.) [string] (Optionally, display a prompt string)
80000089	*xx*	Syntax Error — The string is invalid. The string for the QUERY command must be embedded in quotes.
8000008A	*xx*	Invalid Parameter — The parameter you specified is invalid. The keyboard driver installed does not support the country you selected.
8000008B	*xx*	Invalid Option — The flag values specified are invalid. Valid flags for driver installations are: -L - Lockable (the device can be locked by a single user), N - Shared access (two or more users can share the device, P - Load driver as permanent, R - Raw read access allowed, W - Raw write access allowed, S - Raw set access allowed
8000008C	*xx*	Invalid Parameter — The command line you specified is missing parameters required for a successful driver install. Reenter your command with a full set of parameters.
8000008D	*xx*	Driver Unload Error — An attempt was made to unload a permanently loaded driver. The driver was loaded using the permanent flag and cannot be unloaded.
8000008E	*xx*	Standard I/O Error — You attempted to redirect a file to itself. The STDIN and STDOUT/STDERR file names cannot be the same name.
8000008F	*xx*	Incorrect Use of Wildcards — Multiple files cannot be copied to a single destination file. Use COPY.286 for copy and combine.
80000090	*xx*	Invalid Option — An invalid option was specified. Valid FCOPY command line options are: Copy source [destination] -option, S - Include hidden and system files in the copy, Q - Query whether or not to copy all files specified.
80000091	*xx*	Invalid Argument — An invalid argument was specified. The F parameter must be followed by a decimal value.
80000092	*xx*	Invalid Value — The value entered is too small.
80000093	*xx*	Invalid Value — The value entered is too large.
80000094	*xx*	Invalid Option — An invalid option was specified. Valid FILES command line options are: Fnumber - Increase the number of open files allowed to the specified number, H or ? - Display help.
80000095	*xx*	Too Many Options — Too many command line options were specified. The FILES command supports only one command line entry at a time. Valid FILES command line options are: Fnumber - Increase the number of open files allowed to the specified number, H or ? - Display help.
80000096	*xx*	File Error — The option specified is not supported in this FlexOS release. The FILES command cannot be used on your version of FlexOS. Your version of FlexOS does not support increasing the number of open files dynamically. This program requires FlexOS version 1.42 or later.
80000098	*xx*	-1 or -8 Not Valid for Media Sense — The -1 or -8 option is not valid for the selected drive. Enter the proper request.
80000099	*xx*	Changing Diskette Capacity After Selection is Invalid — The media capacity has changed in the selected drive. Enter the proper request.
80104010	IE	Pipe Resource Manager — An attempt was made to OPEN a pipe that does not exist, and there is no IF END statement in effect.
8020400C	OE	Disk Resource Manager — An attempt was made to OPEN a file that is in LOCKED mode. The file is already opened by another program, and there is no IF END statement in effect.

Return code	ERR code	Description
80204010	OE	Disk Resource Manager – (1) An attempt was made to OPEN a file that does not exist, and there is no IF END statement in effect. (2) The file specified in a SIZE statement could not be found (ERRF%=0).
8021*xxxx*	*xx*	See “Optical Drive Return Codes” on page 327.
802*x*0004	*xx*	Disk error – A cyclical redundancy check (CRC) error occurred.
802*x*0006	*xx*	Disk error – The seek operation failed.
802*x*0008	*xx*	Disk error – A required sector was not found.
802*x*0009	*xx*	Disk error – A hardware error occurred.
802*x*000A	*xx*	Disk error – A write fault error occurred.
802*x*000B	*xx*	Disk error – A read fault error occurred.
802*x*000C	*xx*	Disk error – A general failure occurred.
802*x*000D	*xx*	Disk error – An address mark was not found.
802*x*4300	*xx*	Disk error – The disk is full.
802*x*4301	*xx*	Diskette – The drive latch was opened while files were in use.
802*x*4309	*xx*	File error – The file allocation table (FAT) is corrupted.
802*x*430E	*xx*	File error – An error occurred while reading the FAT.
80580007	*xx*	Optical media is not present or not formatted, or format is in progress.
805A*xxxx*	*xxxx*	CD-ROM error.
805B9305	*xx*	Unmount Operation error - Unable to unmount medium.
805B9700	*xx*	Eject Media API error - A CD/DVD operation was in or is in progress preventing the eject.
805B9701	*xx*	Eject Media API error - Drive is locked, you must issue an unlockp command prior to attempting the eject.
805B9702	*xx*	Eject Media API error - This is a fatal error and it signals that the low CD/DVD device driver was unable to be opened.
805B9703	*xx*	Eject Media API error - The unit's door is closing, retry the eject command.
805B9704	*xx*	Eject Media API error - The CD/DVD Device Driver failed to acknowledge the command.
805B9707	*xx*	Eject Media API error - The eject was not performed due to a format or chkdsk command being in progress.
805Cxxxx	*xx*	Error in Embedded Functions Interface Driver. Some functions handled by this driver are the Enhanced E:, F:, P:, and ADXVXLOG: devices.
80600000	OM	Network Drivers – The LAN is out of storage.
80604007	**I*	Network Drivers – Bad file number: close and reopen to recover. Error caused by using the number of a file that was opened on a remote node that left and then returned to the network.
806043A1	OE	Network Drivers – The LAN cannot connect to a node.
80624440	*xx*	Network Drivers – The LAN request timed out.
806*xxxxx*	*xx*	See “All Other Return Codes” on page 340.
80830005	DO	Totals Retention – The device is offline. Continue totals retention problem resolution using your hardware service documentation.
80830007	DO	Totals Retention – The device is failing. Continue totals retention problem resolution using your hardware service documentation.
80830008	DO	Totals Retention – A command that was not valid was received.
808304A1	TR	Totals Retention – There is too much data to read or write.
808304A2	TR	Totals Retention – A offset that was not valid was specified on Direct Access.
808304A3	TR	Totals Retention – A valid record does not exist at the offset specified on a Direct Access read.
808304A4	BD	Totals Retention – An internal CRC error occurred.
808304A5	EF	Totals Retention – Read is at end-of-file.
808304A7	TR	Totals Retention – A pointer or offset is outside of the authorized range.
808304A8	DW	Totals Retention – The data exceeds the space available on a write.
80840000	OM	I/O Processor – There is insufficient system storage for the input buffers.
80840005	DO	I/O Processor – The keyboard or display is offline. Continue keyboard or display problem resolution using your hardware service documentation.
80840017	BW	I/O Processor – The application issued a read when the driver is locked.

Return code	ERR code	Description
808404C1	BO	I/O Processor – A keyboard buffer overrun occurred.
808404C2	SE	I/O Processor – A state that was not valid was specified in an UNLOCKDEV statement.
808404C3	DO	I/O Processor – A keyboard failure occurred. Continue keyboard problem resolution using your hardware service documentation.
808404C4	DO	I/O Processor – The keyboard is offline. Continue keyboard problem resolution using your hardware service documentation.
808404C5	DO	I/O Processor – The magnetic wand or the OCR device is failing. Continue magnetic wand or OCR device problem resolution your hardware service documentation.
808404C6	DO	I/O Processor – The magnetic wand or the OCR device is offline. Continue magnetic wand or OCR device problem resolution using your hardware service documentation.
808404C7	BO	I/O Processor – A magnetic wand or OCR device buffer overrun occurred.
808404C8	DO	I/O Processor – The scanner is failing. Continue scanner problem resolution using your hardware service documentation.
808404C9	DO	I/O Processor – The scanner is offline. Continue scanner problem resolution using your hardware service documentation.
808404CA	BO	I/O Processor – A scanner buffer overrun occurred.
808404CB	ML	I/O Processor – The Input State Table is not loaded.
808404CC	OE	I/O Processor – The I/O Processor has already been opened by the program.
808404CD	BO	I/O Processor – A caller's buffer overflow occurred.
808404CE	BO	I/O Processor – An alphanumeric or ANPOS keyboard buffer overrun occurred.
808404CF	DO	I/O Processor – The alphanumeric or ANPOS keyboard is failing. Continue keyboard problem resolution using your hardware service documentation.
808404D0	DO	I/O Processor – The alphanumeric or ANPOS keyboard is offline. Continue keyboard problem resolution using your hardware service documentation.
808404D1	BO	I/O Processor – A matrix keyboard buffer overrun occurred.
808404D2	DO	I/O Processor – The matrix keyboard is failing. Continue keyboard problem resolution using your hardware service documentation.
808404D3	DO	I/O Processor – The matrix keyboard is offline. Continue keyboard problem resolution using your hardware service documentation.
808404D4	xx	I/O Processor – Write processing completed while encountering an ending double quote. The user buffer is considered to be invalid.
80847777	xx	Device Manager – A Java exception has been captured from the Java IOProcessor.
80850005	DO	Tone – The device is offline. Continue keyboard problem resolution using your hardware service documentation.
80850008	ID	Tone – The command or data is not valid.
808505A1	QF	Tone – The queue is full.
80860005	DO	Cash Drawer – The device is offline. Continue cash drawer problem resolution using your hardware service documentation.
80860007	DO	Cash Drawer – The device is failing. Continue cash drawer problem resolution using your hardware service documentation.
80860008	ID	Cash Drawer – The command/data is not valid.
80860464	CC	Cash Drawer – The requested cash drawer is not connected.
80890002	*xx*	Print Spooler – The specified job ID is not currently in use in the system. For example: The job has finished or it was canceled.
80890003	*xx*	Print Spooler – The requested redirection would have resulted in a loop of redirections because of previously made redirections.
80890004	*xx*	Print Spooler – The requested action could not be completed because the queue was full.
80890005	*xx*	Print Spooler – The requested action is not possible because the requestor is not operating under a group-user that allows the action.
80890006	*xx*	Print Spooler – For a TOP command, this means the job is not in a queue and it needs to be unheld first. For an UNHOLD command, it means that because of a crash the held job has no printer associated with it. To be unheld, a move command needs to be used.
80894009	*xx*	Print Spooler – A command is missing a vital piece of information, contains information that is not valid, or the command requires a clearance level that the caller does not have.
808A0004		Touch screen buffer size is invalid. The buffer size is too small to hold the data requested.

Return code	ERR code	Description
808A0005		Touch screen is offline. The driver has detected a serious device failure. Check the 4690 system logs to determine what the device failure is. This request from the application was ignored.
808A0008		Command is invalid. The command requested is not a valid command, or contains an invalid option.
808A0086		Request for System Function mode is invalid. This request is not supported when a keyboard is configured.
80900002	*xx*	Printer – No MICR is present.
80900005	DO	Printer – The device is offline. Continue printer problem resolution using your hardware service documentation.
80900009	DO	Printer – The command sent to the printer was invalid, or a command sequence was incorrect.
8090000A	DO	Printer – The selected device is not attached.
8090000D	DO	Printer – A timeout occurred while trying to read. The wait timer has expired before a response to a read request was received.
80900521	DO	Printer – The device is failing. Continue printer problem resolution using your hardware service documentation.
80900522	DO	Printer – The printer cover is open and a line is in error.
80900523	LI	Printer – WRITE LOGO is not supported on the journal station.
80900524	DO	Printer – Illegal data was passed to the driver.
80900525	DO	Printer – A paper path error occurred. Continue printer problem resolution using your hardware service documentation.
80900526	DO	Printer – A printer key error occurred. Continue printer problem resolution using your hardware service documentation.
80900527	DI	Printer Document Insert Station – The document insert station open or closed position is incorrect.
80900528	DI	Printer Document Insert Station – The document is missing in the document insert station.
80900529	DI	Printer Document Insert Station – The document is not allowed in the document insert station.
80900530	DO	Printer Stations – Font file did not download.
8090052A	ID	Printer Document Insert Station – The document insert station mode setting is not valid.
8090052B	ID	Printer – Data that was not valid was specified in OVERLAYSTR.
8090052D	DO	Printer – The printer cover was open and the print line was completed successfully.
8090052F	BO	Printer – The journal buffer was exceeded.
80901120	xx	Printer – An error occurred while writing to a flash EPROM sector.
80901122	xx	Printer – CR cover open.
80901123	xx	Printer – PDF417 barcode generation error.
80901124	xx	Printer – Cutter jam.
80901125	xx	Printer – CR paper feed error.
80901150	xx	Printer – An error occurred while flipping the check or performing a MICR read. The check inserted is too long, or the check does not clear the document sensors when expected.
80901160	xx	Printer – The power management feature has removed power from the printer.
80901521	xx	Printer – The receipt station on the IBM 4689 printer is out of paper.
80901522	xx	Printer – The receipt cover is open or the receipt station is out of paper. For 4610 models 1NR, 2NR, and 2CR, this error only indicates out of paper, 80901122 above indicates cover open.
80901523	xx	Printer – The journal station on the IBM 4689 printer is out of paper.
80901524	xx	Printer – There was an invalid print buffer length. The maximum is 244 bytes.
8090152F	xx	Printer – The printer buffer is full, or the driver buffer is full.
80903000	xx	Printer – Printer station storage is unavailable.
80903003	xx	Printer – An invalid option was specified for a printer station.
80903008	xx	Printer – An incorrect command or data was received at the printer station.
8090400D	xx	Printer – There are not enough system resources to satisfy this request.
80904011	xx	Printer – An illegal parameter was received.

Return code	ERR code	Description
80907777	xx	Device Manager– A Java exception has been captured from the Java POSPrinter Handler.
80980005	DO	Serial Device – The Feature Expansion card is offline. Continue serial device problem resolution using your hardware service documentation.
80980007	DO	Serial Device – The Feature Expansion card is failing. Continue serial device problem resolution using your hardware service documentation.
80980008	ID	Serial Device – Command or data that was not valid was specified on OPEN SERIAL statement.
80980009	OE	Serial Device – The Feature Expansion card is not attached.
80980016	DO	Serial Device – The Feature Expansion card is offline. Continue serial device problem resolution using your hardware service documentation.
80980582	BO	Serial Device – A buffer overrun occurred.
80980583	DV	Serial Device – A device communication error occurred. Continue serial device problem resolution using your hardware service documentation.
80A00005	DO	First Alphanumeric or Operator Display – The device is offline. Continue display problem resolution using your hardware service documentation.
80A00006	CP	First Alphanumeric or Operator Display – A cursor position that was not valid was found.
80A00007	CP	First Alphanumeric or Operator Display – Device hardware failure. Continue problem determination using your hardware service documentation.
80A07777	xx	Device Manager – A Java exception has been captured from the Java ANDisplayHandler.
80A10000	*xx*	First Video Display – There is insufficient system storage to continue.
80A10005	DO	First Video Display – The device is offline. Reset or recovery attempt failed. Continue display problem resolution using your hardware service documentation.
80A10006	CP	First Video Display – A cursor position that was not valid was found.
80A10008	ID	First Video Display – An incorrect combination of bits has been set in a PUTLONG statement.
80A20005	DO	Coin Dispenser – The Feature Expansion card is offline. Continue coin dispenser problem resolution using your hardware service documentation.
80A20007	DO	Coin Dispenser – The Feature Expansion card is failing. Continue coin dispenser problem resolution using your hardware service documentation.
80A20008	ID	Coin Dispenser – The application specified an amount of coins that was not valid to be dispensed.
80A20009	OE	Coin Dispenser – The Feature Expansion card is not attached. Continue coin dispenser problem resolution using your hardware service documentation.
80A30005	DO	Scale – The scale adapter is offline. Continue scale problem resolution using your hardware service documentation.
80A30007	DO	Scale – The scale adapter is failing. Continue scale problem resolution using your hardware service documentation.
80A30009	OE	Scale – The scale adapter is not attached. Continue scale problem resolution using your hardware service documentation.
80A30561	BD	Scale – The scale adapter could not get the same reading from the scale twice in a row. Continue scale problem resolution using your hardware service documentation.
80A30562	BD	Scale – The scale adapter received data that was not valid from the scale. Continue scale problem resolution using your hardware service documentation.
80A30563	BD	Scale – The scale is in motion, over capacity, or under capacity.
80A30564	BD	Scale – The weight on the scale is zero.
80A30565	ID	Scale – The scale configure command failed.
80A30566	ID	Scale – An undefined scale command was requested.
80A30567	ID	Scale – The scale does not support commands from an application.
80A30568	DO	Scale – The scale does not have a display.
80A30569	BD	Scale – The scale report configuration or zero command has failed.
80A3056A	ID	Scale – A second weigh command is not allowed.
80A3056B	DO	Scale – A scale is in the process of configuring itself.
80A3056C	BD	Scale – A scale was over capacity during a weigh.
80A3056D	BD	Scale – A scale was under zero during a weigh.

Return code	ERR code	Description
80A3056E	BD	Scale – A scale required zeroing during a weigh.
80A50004	KF	Magnetic Stripe Reader – Buffer size received from application is too small to receive all potential data from the configured device.
80A50005	DO	MSR – The device is offline. Continue MSR problem resolution using your hardware service documentation.
80A50009	OE	MSR – The keyboard or the Dual-Track MSR is not attached.
80A5000A	OE	MSR – The device is not attached.
80A5000B	BO	MSR – Too much or too little data was received from the card.
80A50016	DO	MSR – The MSR has already been opened by the application.
80A50017	BW	MSR – Data read was attempted and no data was present or the device was locked. Continue MSR problem resolution using your hardware service documentation.
80A57777	xx	Device Manager – A Java exception has been captured from the Java MSR Handler.
80A90005	DO	Shopper Display – The device is offline. Continue display problem resolution using your hardware service documentation.
80AA0005	DO	Second Alphanumeric or Operator Display – The device is offline. Continue display problem resolution using your hardware service documentation.
80AA0006	CP	Second Alphanumeric or Operator Display – A cursor position that was not valid was found.
80AB0005	DO	Second Video Display – The device is offline. Reset or recovery attempt failed. Continue display problem resolution using your hardware service documentation.
80AB0006	CP	Second Video Display – A cursor position that was not valid was found.
80B00000 *through* 80B0066B	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B0066C	*xx*	Canadian Datapac – Multiple Datapac lines are open. Only one line may be open at a time.
80B0066D	*xx*	Canadian Datapac – An application error has occurred.
80B0066E	*xx*	Canadian Datapac – The packet assembler/disassembler (PAD) may not have received data because it did not acknowledge it.
80B0066F	*xx*	Canadian Datapac – Data could not be transmitted because the PAD ceased or never began polling the store controller.
80B10000 *through* 80B10008	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B10010 *through* 80B20011	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B2000D	DO	Communications – SNA – An OPEN timeout occurred. ACTPU was not received within 5 seconds of the OPEN request.
80B2000E *through* 80B20602	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B20603	CR	Communications – SNA – SSCP ID or XID from the host does not match the configured ID.
80B20604 *through* 80B2060A	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B2060B	QS	Communications – SNA – QUIESCE was not specified and sessions are active on the link.
80B20610 *and* 80B20611	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B20613	BI	Communications – SNA – A host BIND data error occurred.
80B20614	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B20615	DO	Communications – SNA – A transmission error occurred. Data cannot be transmitted or received. The session is active from the host. The session must be closed.

Return code	ERR code	Description
80B20616	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B20617	CR	Communications – SNA – The session is not configured.
80B20619	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B2061A	ST	Communications – SNA – SENSE status is available.
80B2061B *through* 80B20821	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B21001 *and* 80B21002	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B21003 *through* 80B21012	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80B21013 *through* 80B21015	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B21016 *through* 80B2100C	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80B2100D *and* 80B2100E	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B2100F *and* 80B21010	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80B21011	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B21012	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80B21100 *through* 80B2110B	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B21280	*xx*	Communications – Line error on adapter. Negative or no response to XLOAD that was sent to initialize adapter.
80B21281	*xx*	Communications – Failure to allocate system resource such as memory, flags, or event masks.
80B21282	*xx*	Communications – An attempt was made to XOPEN SVC or XALLOC PVC on a line that has not been XLOADED.
80B21290	*xx*	Communications – An attempt was made to XALLOC a PVC that is already in use.
80B21291	*xx*	Communications – No SVCs are available. This may be caused by a modem being powered Off or not attached.
80B21292	*xx*	Communications – The receipt delay for XRECEIVE or XOPENREC has been exceeded.
80B21293	*xx*	Communications – The XSTO timeout value has been exceeded on a verb other than XRECEIVE or XOPENREC. A zero timeout value was in force for one of the verbs XSEND, XIT, XRESET or XOPENACC.
80B21294	*xx*	Communications – Attempt to XLOAD a line while another XLOAD is in progress for that line.
80B21295	*xx*	Communications – An event (Clear, Reset, or Interrupt) was received before the current verb completed.
80B21296	*xx*	Communications – Returned by XEVENT if no event is outstanding.
80B21297	*xx*	Communications – Returned by XSEND if, in response to a data packet, anything other than a normal acknowledgment or a Clear, Reset, or Interrupt was received.
80B21298	*xx*	Communications – Returned by XCLOSE if, in response to a Clear Request, anything other than a Clear Confirm, Clear, Reset, or Interrupt was received.
80B21299	*xx*	Communications – Returned by XRESET if, in response to a Reset Request, anything other than a Reset Confirm, Clear, Reset, or Interrupt was received.

Return code	ERR code	Description
80B2129A	*xx*	Communications – Returned by XIT if, in response to an Interrupt, anything other than an Interrupt Confirm, Clear, Reset, or Interrupt was received.
80B2129B	*xx*	Communications – Returned by XOPEN if an expected Call Connect was not received.
80B212A0	*xx*	Communications – The user application has specified a parameter to a verb that is not addressable by the API, probably due to specifying a buffer that is shorter than the associated minimum length or shorter than the specified length.
80B212A1	*xx*	Communications – Invalid connection ID.
80B212A2	*xx*	Communications – Not returned.
80B212A3	*xx*	Communications – Returned by XSEND on SVCs only if the delivery confirmation indicator (D-bit) was requested but D-bit services had not been successfully established by XOPEN or XOPENACC.
80B212A4	*xx*	Communications – Returned by XSEND if the user requested the more data mark (M-bit) but the sending data size was not a multiple of 128 bytes.
80B212A5	*xx*	Communications – Reserved.
80B212A6	*xx*	Communications – Returned by XOPENREC or XOPEN if the specified called address length is not valid (negative or greater than 15).
80B212A7	*xx*	Communications – Returned by XOPENREC if the specified calling address length is not valid (negative or greater than 15).
80B212A8	*xx*	Communications – Returned by XOPEN, XCLOSE, XSEND, XRECEIVE or XIT if the specified data length (call user data, clear user data, send data, or interrupt data) is not valid (negative or greater than the maximum allowable).
80B212A9	*xx*	Communications – Returned by XOPEN or XCLOSE if the specified facilities field length is not valid (negative or greater than 109)
80B212AA	*xx*	Communications – Returned by XOPEN or XALLOC if the specified VCR name length is not valid (negative or greater than 8).
80B212AB	*xx*	Communications – Reserved.
80B212AC	*xx*	Communications – Returned by XOPEN if the specified remote application name length is not valid (negative or greater than 8).
80B212AD	*xx*	Communications – Returned by XRECEIVE or XOPENREC if specified receipt delay is not valid (less than -1).
80B212B0	*xx*	Communications – Returned by XOPEN or XALLOC if the API is unable to read either the circuit configuration record or the associated line configuration record.
80B212B1	*xx*	Communications – Attempt to XALLOC a circuit that is not a PVC.
80B212B2	*xx*	Communications – Attempt to XOPEN a circuit that is not an SVC.
80B2400D	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B24181	*xx*	Communications – SNA – The link was forced inactive at the store controller.
80B24186	*xx*	Communications – SNA – An event mask that was not valid was received from the data link control (DLC) driver.
80B24189	*xx*	Communications – SNA – The SNA driver is ending.
80B2*xxxx*	*xx*	Communications – SNA – See Chapter 5, “Communication and HCP error sense code descriptions.”
80B30000	OM	Communications – SNA – Insufficient system storage available for an SNA link or a session to be started.
80B30002	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B3000C	RS	Communications – RESUME is not supported for the specified operation.
80B3000D	OE	Communications – ACTPU request was not received from the host system within 20 seconds of open link request. Open link continues processing.
80B305E2 *and* 80B305E3	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B305E4	OE	Communications – An open error occurred. The SNA driver is in the process of shutdown due to a hardware error, link error, or a normal shutdown from the host.
80B305E5	OE	Communications – The adapter was not found or a port on the IBM Realtime Interface Co-Processor Multiport/2 adapter was configured for communications and either an Auxiliary Console or Multiple Printer port.

Return code	ERR code	Description
80B305E6	DO	Communications – A communications adapter error occurred.
80B305E7	OE	Communications – A subdriver install error occurred.
80B305EA *through* 80B305F7 80B305F8	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B306D4	OE	Communications – Sector zero of keyed file is zero.
80B34005	*xx*	Communications – The device was not found or the device is failing.
80B34010 *through* 80B4063C	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80B60721	*xx*	Remote Change Management Processor – An attempt to delete, add, or update a file in a program directory was rejected by the RCMS.
80B60722	*xx*	Remote Change Management Processor – The RCMS rejected a session initiate request because of unsupported parameters in the BIND command.
80B60723	*xx*	Remote Change Management Processor – An internal RCMS error occurred. A receive request was made that was out of the protocol sequence.
80B60724	*xx*	Remote Change Management Processor – An internal RCMS error occurred. A send request was made that was out of the protocol sequence.
80B60725	*xx*	Remote Change Management Processor – The host ended the session with the RCMS.
80B60726	*xx*	Remote Change Management Processor – An unsupported command was sent to the RCMS by the host.
80B60727	*xx*	Remote Change Management Processor – A command format that was not valid was sent to the RCMS by the host.
80B60728	*xx*	Remote Change Management Processor – The programmable store system (PSS) file data translation program EALHSHTP (or EAMHSHTP) could not be started.
80B60729	*xx*	Remote Change Management Processor – A file to be translated was not recognized as a 4690PSS file by the programmable store system (PSS) file data translation program EALHSHTP (or EAMHSHTP).
80B6072A	*xx*	Remote Change Management Processor – A file that was being translated contained data that was not valid.
80B6072B	*xx*	Remote Change Management Processor – A timeout occurred while waiting for a response from the PSS file data translation program EALHSHTP (or EAMHSHTP).
80B6072C	*xx*	Remote Change Management Processor – A distributed systems executive (DSX) command being processed by the RCMS was ended by a host request.
80B6072D	*xx*	Remote Change Management Processor – File transmission could not be restarted.
80B6072E	*xx*	Remote Change Management Processor – A CLIST that was not valid was sent by the host.
80B6072F	*xx*	Remote Change Management Processor – An incomplete directory specification was made for a retrieve of a directory list.
80B60730	*xx*	Remote Change Management Processor – A record is in error in the ADXHSRNF.DAT file used to define logical file names for host access to 4690 directory information.
80B60780	*xx*	Remote Change Management Server – An error occurred opening the first set of communications pipes.
80B60781	*xx*	Remote Change Management Server – An error indication was received from Applications Services.
80B60782	*xx*	Remote Change Management Server – The maximum number of asynchronous CLISTs have already been started.
80B60783	*xx*	Remote Change Management Server – An error occurred opening the second set of communications pipes.
80B60784	*xx*	Remote Change Management Server – An error occurred during initialization of normal disconnected mode (NDM) communications.
80B60785	*xx*	Remote Change Management Server – Communication with NDM is not active; NDM specific commands can not be processed.

Return code	ERR code	Description
80B90001 *through* 80BA0002	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BC0A00 *through* 80BC0A43	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC0A44	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BC0A45 *through* 80BC0B01	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC0B02	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BC0B40 *and* 80BC0B41	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC0B42	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BC0B43 *through* 80BC0BC3	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC0BC4 *and* 80BC0BC5	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BC0BC6	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC1100 *and* 80BC1101	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC1102	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BC1103 *and* 80BC1117	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC1118 *through* 80BC1142	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BC1144 *and* 80BC1151 80BC1152	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC1160 *through* 80BC1162	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC1170 *through* 80BC1172	*xx*	Communications – See Communication return codes 80Bxxxxx beginning on page 296.
80BC1173	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC1174 *through* 80BC1176	*xx*	Communications – See Communication return codes 80Bxxxxx beginning on page 296.
80BC1177 *through* 80BC117A	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC1180 *through* 80BC1184	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.

Return code	ERR code	Description
80BC1188 *through* 80BC118B	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC118C *through* 80BC11B3	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BC11B4	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC11B5 *through* 80BC11C2	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BC11C3 *and* 80BC11C4	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BC11C5 *through* 80BC11D3	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BC11E0 *and* 80BC11E1	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BD0100	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BD0140 *through* 80BD0148	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BD0149	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80BD014A *through* 80BD014E	*xx*	Communications – Internal Software Error – Initiate a store controller dump and contact the IBM Support Center.
80BE0100 *through* 80BE0403	*xx*	See Communication return codes 80Bxxxxx beginning on page 296.
80C30701	PR	Pipe Routing Services – There was an attempt to read more data than what is available. The pipe has been purged or the message to be read is no longer available; however, any remaining messages in the pipe have not been purged.
80C30702	PR	Pipe Routing Services – The requested read or write length is greater than the 120-byte maximum.
80C4FC0A	*xx*	A cancel has been issued against an event that has already completed.
80C4FC0B	*xx*	An attempt was made to write to a pipe with a buffer size greater than 120 bytes.
80C4FC0C	*xx*	An error has occurred on a write to a pipe.
80C4FC0D	*xx*	An attempt was made to write to a pipe that does not exist.
80C4FC0E	*xx*	An incorrect destination was specified on a write to a pipe.
80C4FC16	*xx*	There is insufficient memory to process a request.
80C4FC17	*xx*	The pipe already exists.
80C4FC18	*xx*	An incorrect pipe ID was chosen.
80C8400D	*xx*	IPL Command Processor – There is not enough storage available.
80C84003	*xx*	IPL Command Processor – End-of-file was reached.
80C8400F	*xx*	IPL Command Processor – An illegal file name was specified.
80C84011	*xx*	IPL Command Processor – An illegal parameter was specified.
80DD0901	*xx*	DDA – There is not enough space to complete reconciliation.
80E4*xxxx*	*xx*	See “Optical Drive Return Codes” on page 327.
80E5*xxxx*	*xx*	See `http://www.ibm.com/solutions/retail`.
8*x*E6*xxxx*	*xx*	See `http://www.ibm.com/solutions/retail`.
80E70001	*xx*	The given ID was not found.
80E70002	*xx*	The ID and password are valid, but are not authorized to make changes to security settings.

Return code	ERR code	Description
80E70003	*xx*	The ID and/or password are not valid (that is, authentication failed for this ID and password pair).
80E70004	*xx*	The user's password has expired. The user cannot log in or perform other actions until the password is changed.
80E70006	*xx*	The given ID already exists and must be deleted before a record with this ID can be created or copied. Note that lowercase letters in the ID are converted to uppercase when ID records are created.
80E70007	*xx*	The requested password is the same as a previous password. A different password must be selected.
80E70008	*xx*	The password contains the user's ID. A different password must be selected.
80E70009	*xx*	The password contains a sequence of more than 2 sequential characters (for example, "DEF" or "567"). A different password must be selected.
80E7000A	*xx*	The password contains a string of more than 2 repeated characters. A different password must be selected.
80E7000B	*xx*	Too few characters in the new password have been changed. A different password must be selected.
80E7000C	*xx*	The password does not contain at least one uppercase letter, one lowercase letter, one numeric character, and one special character. A different password must be selected. This error is returned when the "multiple character" option is enabled and the password does not meet the requirement of containing a character of each type.
80E7000D	*xx*	The user record is currently locked and cannot be accessed. This error is also returned when the current session has the record locked and a request requiring the record to be unlocked is made. This includes cases where a program attempts to lock a record twice.
80E7000E	*xx*	The user's session has been active for too long and has timed out. All API calls made with the same session ID will continue to return this error until the Cancel() API is called. The application must create a new session and redo any changes before time expires.
80E7000F	*xx*	This error is returned when there is a buffer error. Buffer errors includes cases where a string, buffer, or other pointer passed to the API is not valid or the pointer is not valid for the given for the specified length. It is also returned in cases where the provided buffer is not the correct size to return the correct data, as with the GetIDs() and GetModelIDs() APIs.
80E70010	*xx*	Only a limited number of sessions can be created at the same time. This error code indicates that there are too many active sessions already in existence.
80E70011	*xx*	The session ID is not valid. This error is also returned on any API call that requires a session number, if the call is made when the enhanced security service is unavailable.
80E70012	*xx*	The data provided by the API is not valid. This error is returned when the provided data values or buffer contents are not valid or are out of range for the given API.
80E70013	*xx*	The record cannot be modified because it is not locked. Lock the record and retry.
80E70014	*xx*	The requested target ID on a create or copy call is not valid.
80E70015	*xx*	The new password contains characters that are not valid.
80E70016	*xx*	The new password is too short.
80E70017	*xx*	Enhanced Security is not configured and available.
80E70018	*xx*	This controller is not the acting master or cannot contact the acting master. Sessions can only be created and used on the acting master or from a node that can contact the acting master. This error is also returned when the ChangePassword API is called and the acting master controller cannot be contacted. Passwords can only be changed when the acting master is available.
80E70019	*xx*	The password file is full. It contains the maximum 2048 entries. No more operator IDs or models can be added.
80E7001A	*xx*	An unexpected file I/O error has occurred while processing this request.
80E7001B	*xx*	The ID is a model ID. The passwords for model records cannot be changed and model IDs cannot be used to validate a password.

Return code	ERR code	Description
80E7001C	*xx*	This error is returned when the setting change being made would result in an setting that is not valid for minimum password length. Normally, the valid range for the minimum password length setting is from 2 to 8. However, two optional requirements can affect the minimum password length: • If the option to require a password to contain an upper case character, lower case character, numeric character, and special character is selected (the multiple character option), the minimum password length is four. • If the option to require a four character change in the password is selected, the minimum password length is also four.
80E7001D	*xx*	This error is returned when an attribute change being made would result in a set of attributes that is not valid (for example, if a reserved attribute is being enabled). Also, some attributes are prerequisites of others. For example, the attribute allowing configuration to be run (ADX_CPW_ATTR_SYSTEM_CONFIGURATION_SYSTEM_SETTINGS) cannot be enabled unless the attribute allowing access to configuration and update aids (ADX_CPW_ATTR_INSTALLATION_AND_UPDATE_AIDS) is also enabled.
80E7001E	*xx*	The password does not contain both an alphabetic character and a numeric character. A different password must be selected.
80E7001F	*xx*	The operation is not supported for the master record of the file. Currently, the master record cannot be deleted.
80E70020	*xx*	This error is returned if a user tries to enable an attribute that is disabled in its own record. This error is also returned if the user tries to set the Group Number or User Number to a value less than in its own.
80E70021	*xx*	This error is returned when a user is attempting to lock a record that has an authorization level greater than its own. This error is also returned when a user tries to copy/create a record with an authorization level greater than in its own. It is also returned when the user is trying to set a record's authorization level higher than its own.
80E70022	*xx*	This error is returned if the user tries to set global attributes and does not have *Enhanced Security Password Settings* enabled in the system attributes.
80F00401	FL	Application Loader – The file name is too large. It must be 40 bytes or less.
80F00402	NK	Application Loader – Chain keep is not allowed.
80F00403	NB	Application Loader – The requested table was not found.
80F00404	OM	Application Loader – There is insufficient system storage available to load a table.
80F00405	OM	Application Loader – There is insufficient system storage to load the application program.
80F00406	CM	Application Loader – The specified program could not be found.
80F00407	NB	Application Loader – A table that was not valid was requested on a LOAD statement.
80F0040E	*xx*	Application Loader – The application was not loaded; no default application name is available.
80F10000	OM	Terminal File Services – There is insufficient system storage for input buffers.
80F10681	TO	Terminal File Services – The terminal is offline. This error can be caused by the terminal number not being defined as a LAN-attached terminal in the controller's System Configuration, LAN Terminal Definition.
80F10682	WM	Terminal File Services – A file type that was not valid was received for WRITE MATRIX.
80F10683	RP	Terminal File Services – The request is not valid because: The file name exceeds 25 bytes; an attempt was made to read from a keyed file with a bad key length or record length; a WRITE MATRIX was issued on something other than a sequential file; an unformatted read was attempted from a remote pipe or a TCLOSE was issued against a remote file.
80F10684	RP	Terminal File Services – Maximum number of files exceeded. An attempt was made to open a file when the file table was full.
80F10685	*xx*	Terminal File Services – The application issued a WRITE MATRIX for greater than 508 bytes or less than zero bytes. Correct the application’s usage of the WRITE MATRIX command.
80F10686	*/*	Terminal File Services – A terminal application timeout occurred.
80F10687	*/*	Terminal File Services – A terminal application was requested offline.

Return code	ERR code	Description
80F206A1	TF	Shared I/O Access Method – A pipe or file CREATE or OPEN request was received from a terminal and the Shared I/O Access Method file number or terminal address table was full.
80F206A2	TF	Shared I/O Access Method – A CREATE or OPEN request was received for a file to be accessed as read only shared, and the Shared I/O Access Method R/O table was full.
80F206A3	TF	Shared I/O Access Method – A SPECIAL read or wait request was received for a pipe, and the Shared I/O Access Method file number or event number table was full.
80F206A4	TF	Shared I/O Access Method – The first application file or pipe request was received from a terminal, and the Shared I/O Access Method sequence table was full.
80F206A5	BB	Shared I/O Access Method – Shared I/O Access Method received a file read request that contained a negative value for the number of bytes to read.
80F206A6	BB	Shared I/O Access Method – Shared I/O Access Method received a remote pipe read or write request or a pipe routing service write request with count less than 0 or greater than 120 bytes to read.
80F206A7	BB	Shared I/O Access Method – The file write request-for-byte-count exceeded the maximum of 512 bytes.
80F206A8	WM	Shared I/O Access Method – A WRITE MATRIX sequence error has occurred. The first segment of the WRITE MATRIX was never received.
80F206A9	*xx*	Shared I/O Access Method – Shared I/O Access Method received a file read request from a terminal application for more than 512 bytes using the “Read relative to file pointer” option. “Read relative to beginning of file” is the only option supported with a read request of more than 512 bytes.
80F206AB	*xx*	Shared I/O Access Method – No files were opened for the terminal sending a request. The terminal sending the request has no files open.
80F30000	OM	Keyed File Services – There is insufficient system storage for the input buffers.
80F30004	KF	Keyed File Services – The record length of the file does not match the record length of the session number.
80F306C1	KF	Keyed File Services – A record length that was not valid was specified. The file was opened with a record length different from the record length used to create the file.
80F306C2	KF	Keyed File Services – A KEY length that was not valid was specified.
80F306C3	KF	Keyed File Services – A CHAIN threshold that was not valid was returned by CREATE POSFILE. The specified CHAIN threshold is greater than the number of sectors allocated.
80F306C4	KF	Keyed File Services – A randomizing divisor that was not valid was specified in CREATE POSFILE. The divisor was specified as equal to 0 or greater than the number of sectors allocated to file.
80F306C6	KF	Keyed File Services – A chain that is not valid exists because an I/O error occurred during a keyed record chain operation. **Note:** This return code is given for all subsequent commands.
80F306C7	KF	Keyed File Services – Attributes that were not valid on an OPEN to keyed file and sector zero cannot be validated.
80F306C8	EF	Keyed File Services – A keyed record was not found.
80F306C9	KF	Keyed File Services – A KEY that was not valid was specified. Either the WRITE AUTOUNLOCK used a different key than the READ AUTOLOCK or a WRITE AUTOUNLOCK was attempted without a prior READ AUTOLOCK.
80F306CA	KF	Keyed File Services – A command sequence that was not valid was received. The WRITE AUTOLOCK used a different key than the READ AUTOLOCK.
80F306CB	WH	Keyed File Services – A WRITE HOLD sequence error has occurred. Do not use WRITE HOLD to write to files that exist on two different nodes.
80F306CC	KF	Keyed File Services – The record already exists in keyed file. A new keyed record was not added.
80F306CD	KF	Keyed File Services – A null KEY was specified.
80F306CE	DW	Keyed File Services – The keyed file is full.
80F306CF	KF	Keyed File Services – A keyed file access rights violation occurred. A WRITE/DELETE command was issued to a keyed file that was opened OUT only or IN only.
80F306D0	KF	Keyed File Services – The chain threshold was exceeded.
80F306D1	*xx*	Keyed File Services – There is no active partition.

Return code	ERR code	Description
80F306D2	*xx*	Keyed File Services – There is no permanent storage buffer available.
80F306D3	KF	Keyed File Services – Sector zero of the file is zero. An error occurred on creation.
80F306D4	OF	Keyed File Services – Sector zero of keyed file is zero.
80F306D5	KF	Keyed File Services – The write to sector 0 of a keyed file is not valid.
80F306D6	KF	Keyed File Services – A circular CHAIN was found during a keyed record chain operation.
80F306E0	LN	Local Area Network – LAN (MCF Network) tried to lock a distributed file. A distributed file must be used unlocked or read only.
80F306E1	LN	Local Area Network – LAN (MCF Network) tried to open an IMAGE copy file with write capability. An IMAGE copy file must be opened NONWRITE, NODEL.
80F306E3	LN	Local Area Network – LAN (MCF Network) tried to create a distributed file on a node that was not valid (not on the acting master or acting file server store controller).
80F306E4	LN	Local Area Network – LAN (MCF Network) tried to distribute a local file.
80F306E5	LN	Local Area Network – LAN (MCF Network) tried to open a Distributed On Close file on a node other than the master or file server store controller.
80F306F0	*xx*	POS File Services – An application attempted to use a restricted file.
80F306F1	*xx*	POS File Services – An application attempted to restrict a file that does not exist.
80F306F2	*xx*	POS File Services – An application attempted to unrestrict without first doing a restrict.
80F306F3	*xx*	POS File Services – An application attempted to unrestrict a file that was not restricted.
80F306F4	*xx*	POS File Services – An application attempted to restrict a file while another restrict was active.
80F306F5	*xx*	POS File Services – An application attempted to restrict a Distributed On Closed file.
80F306F6	*xx*	POS File Services – An application attempted to restrict a file on the wrong node.
80F306F7	*xx*	POS File Services - An application attempted to restrict a file that is being distributed.
80F306F8	*xx*	Keyed File PLD Recovery – Keyed File Recovery has been disabled due to a disk error.
80F306F9	*xx*	POS File Services– An application attempted to restrict a file and the restrict function timed out.
80F306FA	*xx*	POS File Services– An application attempted to restrict a file and the restrict request is still being blocked.
80F6*xxxx*	*xx*	See “Optical Drive Return Codes” on page 327.
80FA*xxxx*	*xx*	See “Optical Drive Return Codes” on page 327.

Communication return codes 80Bxxxxx

This list gives an explanation and user response for some of the communication return codes issued by the operating system. If you cannot find your return code in this section, refer to “Return codes” on page 276.

80B00000 ERR Code=OM

Explanation: There are not enough system resources available to support the ASYNC communications task.

User response: Retry the application after the currently running application ends. Notify your store programmer of this error and provide the names of any other applications running at the time the error was received.

80B00003 ERR Code=*xx*

Explanation: The requested ASYNC function is not supported.

User response: Verify that the function requested is valid for asynchronous communication. If the problem is not in the application code, contact your IBM Service representative.

80B0000D ERR Code=DO

Explanation: A read timeout has occurred. No data was received (character mode) or a full record was not received before the read timer expired. The communications line may be down, or no data was transmitted.

User response: Check the communications line. It may be necessary to increase the timeout value.

80B0000E ERR Code=BO

Explanation: The current record is larger than the application buffer.

User response: Continue issuing READs until all data is received.

80B0000F ERR Code=DO

Explanation: There was a failure opening the communications line. The line could not be opened because the Clear-to-Send (CTS), Data-Set-Ready (DSR), or RLDS signals were not raised.

User response: Check the System Log to determine the exact cause.

80B00010 ERR Code=DO

Explanation: An asynchronous hardware error has occurred.

User response: Contact the IBM Support Center.

80B00013 ERR Code=OE

Explanation: Your application is using up its allotted 31 event flags or there is no more operating system memory available to create an event block.

User response: If other applications were running at the time the application that received the error was running, retry it after one of the others ends. If the application still fails, ensure that your application is not trying to use more than 31 event flags. This can be checked by changing the application so that it does not have as many files and drivers open at the same time.

80B00661 ERR Code=BD

Explanation: A byte of data that was not valid has been received. This is usually because a parity or framing error is detected. Bad data on the communications line is usually caused by an improper definition of the communication protocol, or by interference on the communication line. In rare cases it can be caused by the communication hardware.

User response: Verify the hardware and the communications line configuration. If they are correct, the problem is line interference. Sometimes a slower transmission speed can fix this problem. You may want to try another line of higher quality and grade. Code your application to instruct the sender of the data to retransmit the data when an error is detected.

80B00662 ERR Code=BD

Explanation: Multiple characters of data were received in error. There is no way of determining how much data was sent and received in error. This is the same problem as error code X'0661' except more characters were received in error.

User response: All actions specified for error code X'0661' are valid for this error condition.

80B00663 ERR Code=DO

Explanation: The host is temporarily not sending. The application at the store controller has sent an XOFF to the host and has then issued a READ without sending an XON.

User response: Send an XON to the host.

80B00664 ERR Code=BD

Explanation: More data was received than could fit in the receive buffers.

User response: Increase the size and number of receive buffers. Modify your applications to look for acknowledgments before sending more data. Change the receive application to read the transmitted data more often.

80B00665 ERR Code=DO

Explanation: The Data-Set-Ready signal was not received.

User response: Ensure that the device you are communicating with is active and has its Data-Set-Ready indicator on. Ensure that all adapter and device cables are tightly connected. Ensure that your modems, if used, are in the proper states and that their settings are correct. If no modems are used, ensure that the cable being used has the Data-Set-Ready pin in one connector attached to the Data-Terminal-Ready pin in the other connector. If all of this is correct, run the diagnostics for the adapter being used. If the diagnostics do not indicate a problem, ensure the adapter being used is defined in your configuration. If all is then correct, contact your IBM representative.

80B00666 ERR Code=DO

Explanation: The Clear-to-Send signal was not received. The ASYNC support raises the Request-To-Send signal and expects the Clear-To-Send signal to be raised within 10 seconds. If this does not happen, this error code is issued. This signal is checked regardless of what type of connection is being made.

User response: Perform the same checks as specified for error code 80B00665 except check the Request-To-Send and Clear-To-Send indicators and pins.

80B00667 ERR Code=DO

Explanation: The Receive-Line-Signal was not detected. This is sometimes referred to as Carrier Detect. This error will be generated after either:

- The timeout value for the Auto-dial or Auto-answer process has expired
- The Receive-Line-Signal was not detected after 10 seconds for nonswitched or direct attach connections.

User response: Instead of checking the Data-Set-Ready line, check the Receive-Line-Signal line. Check all the items specified for error code 80B00665.

80B00668 ERR Code=BD

Explanation: When operating in record I/O mode, a parity error was detected while receiving a record of data. This record has been lost.

User response: See the user response specified for error code X'0661'.

80B00669 ERR Code=BD

Explanation: The read record is bad because a data overrun has occurred. Data is being sent faster than it can be received.

User response: Try running the operation at a slower line speed. It may be possible to run at the configured speed when the store controller is not busy performing other tasks and operations. If a slower transmission speed does not solve the problem, contact your IBM Service representative.

80B0066B ERR Code=*xx*

Explanation: The requested function is already outstanding.

User response: Correct error in user program.

80B10008 ERR Code=ID

Explanation: The write control byte was not valid, or the requested write buffer exceeds the maximum size specified in your configuration.

User response: Verify that your configuration specifies a message size that is larger than or equal to the message size you are trying to write. If this is correct, verify that the write byte at the beginning of your write buffer is correct with respect to the protocol you are using and the state of the communications. Refer to *IBM 4680 BASIC: Language Reference* for details.

80B1000D ERR Code=DO

Explanation: A READ timed out occurred.

User response: Retry the read.

80B1000E ERR Code=BO

Explanation: The read buffer is too small.

User response: Allocate a larger buffer.

80B10016 ERR Code=OE

Explanation: Line already open. This error indicates a system problem.

User response: A dump of the system should be taken, then contact your system support person.

80B10641 ERR Code=ID

Explanation: The store controller application has a programming error. The application is trying to write data. It must issue a READ statement first to receive the response to a previous WRITE statement.

Note: This error should not occur when communication is over an SNA link.

User response: No user action is necessary.

80B10644 ERR Code=OE

Explanation: The host ID for switched line is not valid.

User response: Verify that the host ID specified in your configuration matches the ID being sent by the host. If this is correct, ensure the proper configuration is specified in the program.

80B20002 ERR Code=BZ

Explanation: The open cannot be processed because of an SNA error recovery in progress.

User response: Wait for the error recovery to complete and retry.

80B2000E ERR Code=*xx*

Explanation: An application failed to initialize due to an internal timeout.

User response: Try to restart the failing application. If the problem persists, follow “Problem data collection procedure 3” on page 356 and contact the IBM Support Center for assistance.

80B20011 ERR Code=*xx*

Explanation: An application failed to initialize because the required session is being used by another application. This may occur if the application is already running or if two applications are using the same session.

User response: Determine why two applications are trying to use the same session and correct the problem.

80B205E2 ERR Code=BZ

Explanation: Either all SNA host links are being used or the communications adapter required to service the SNA host link is already being used.

User response: Determine which other applications are running and using the required host resources. Retry the application after the applications using the SNA resources are complete, or try another SNA link and communications adapter combination if a communications adapter is available and no more than one host link is active.

80B205EB ERR Code=I***

Explanation: A UNIT number that is not valid has been passed to the SNA support code. There is a problem with the store controller operating system.

User response: Initiate a store controller dump and contact your software support personnel.

80B205EC ERR Code=*xx*

Explanation: A SPECIAL request that was not valid was made to the driver. This is an error in the application code.

User response: Refer to *IBM 4680 BASIC: Language Reference* for valid options that can be requested.

80B205EF ERR Code=OE

Explanation: No more system flags were available at the time the SNA Services driver was installed. Your system does not have enough resources to support SNA host communications.

User response: Modify your code so as to have fewer files and drivers open when you try to open the SNA support driver.

80B20602 ERR Code=HC

Explanation: While the SNA support was active, an ACTPU request was received from the host. The application must close the link and all sessions that are active on that link. It may then reopen the link and sessions. No warm start or recovery is supported in this instance.

User response: No user action is necessary.

80B20604 ERR Code=HC

Explanation: While the SNA support was active, a DACTPU request was received from the host system. This effectively cancels all communications on the link. The application must close the link and all sessions that are active on that link. It may then reopen the link and sessions. No warm start or recovery is supported in this instance.

User response: No user action is necessary.

80B20605 ERR Code=HC

Explanation: While the SNA support was active, an ACTLU request was received from the host system. This resets the state of any session that is using that LU. The application must close the session associated with the ACTLU. It may then reopen the session. However, no warm start or recovery is supported in this instance.

User response: No user action is necessary.

80B20606 ERR Code=HC

Explanation: While the SNA support was active, a DACTLU request was received from the host. This releases all data associated with the session. The application must close the session that received the DACTLU request. It may then reopen the session. However, no warm start or recovery is supported in this instance.

User response: No user action is necessary.

80B20607 ERR Code=AS

Explanation: A request was made to start a session with the host but the session could not start because the named session does not exist in the configuration for the link, or because the host has not issued an ACTLU request for the session.

This error can be caused by attempting to start 3270 Emulation on a monochrome monitor when color is specified as the screen type in the SNA Session Group for that 3270 session.

User response: If the named session is not configured for the link being used, define it. Otherwise, ensure that the proper host command is issued to start the host to LU session through an ACTLU request.

80B20608 ERR Code=AS

Explanation: A request was made to start a session with the host, but the session could not start because another application was using the requested session.

User response: Ensure that both applications are using the correct session name and link. If they are, run them separately if possible. If they must run simultaneously, change the session name and Logical Unit (LU) addresses and ensure that the host application can communicate with both store applications simultaneously.

80B20609 ERR Code=HC

Explanation: A BIND response was sent back to the host system but the parameters that were specified for the maximum request unit (RU) size or pacing window sizes can not be supported. This error will only appear for non-negotiable BIND requests.

User response: Verify that the maximum RU size is 512 bytes or less. If this is the case, then not enough memory is available to support the pacing buffers specified in the pacing window size. Retry the application when system memory is available, or change the BIND being sent so it specifies a lower pacing window size.

80B2060A ERR Code=HC

Explanation: The store application is trying to send an SNA request to the host while it has data from the host system available to be read. The write is not processed. All the data from the host that is available to be read must be read before a request can be sent to the host. Responses to host requests can be written at any time however.

User response: No user action is necessary.

80B20610 ERR Code=BO

Explanation: This error occurs when an application issues a READ, but its buffer is too small to hold the data received from the host or if the application is issuing a WRITE and the data being written is larger than the maximum RU size supported. If BIND data is being read, no data overrun error will be posted.

User response: If a READ was being issued, increase the size of your read buffer to hold all the data and reissue the READ request. If a WRITE is being issued, ensure that the RU size in the BIND is large enough to hold your buffer. BIND RU sizes should be expressed in multiples of 256 bytes with 512 bytes being the maximum RU size supported.

80B20611 ERR Code=HC

Explanation: An UNBIND request for the session has been received from the host.

User response: The application must issue a close request in response to the UNBIND. After the close, it can then issue an open request.

80B20614 ERR Code=HC

Explanation: The host system has responded negatively to a INIT SELF request from the store controller.

User response: Ensure that the host application name specified in your session configuration is correct. Contact your host programmer and provide the name of the Host application you are trying to communicate with. The sense status for the negative response is stored in the session control block.

80B20616 ERR Code=PA

Explanation: The application is trying to write data to the host, but the host pacing queues are all full.

User response: Get the session status and check the host pacing indicator to be off. When it is off, you can then issue a WRITE request.

80B20619 ERR Code=HC

Explanation: Some condition has caused the SNA service to enter a waiting for close state. This can be caused by an ACTPU, ACTLU, DACTLU, DACTPU, or UNBIND request being received from the host or by a communication outage because of hardware or line errors.

User response: Issue a close for the session. If the condition was because of a link request or problem, also close the link. If communication should continue and a hardware error does not exist, then reissue the open link and open session requests.

80B2061B ERR Code=I***

Explanation: The process to communicate with the host has been ended because of an error.

User response: Look at the error code that has been placed in the error log and correct that error. Then retry your communications.

80B20624 ERR Code=HC

Explanation: The disconnect command was received from the host and communications are terminated.

User response: Determine why the host issued the disconnect request to the store controller. It could possibly be because of an SSCP ID that was not valid. Verify communications and line configuration for valid ID exchange.

80B20625 ERR Code=HC

Explanation: A data format control error occurred.

User response: Call your IBM Service representative.

80B20628 ERR Code=HC

Explanation: A command to end has been received from the host. The application should close the link and session. It should then reopen the link and session to continue processing.

User response: No user action is necessary.

80B20629 ERR Code=HC

Explanation: There was a text buffer overflow on received data.

User response: Examine the configuration record to make sure that the blocksize is the maximum expected blocksize.

80B2081D ERR Code=*xx*

Explanation: An ACTPU request was received that specified an SSCP ID that did not match the SSCP ID defined for the store controller link that was being enabled.

User response: Use the correct SSCP ID and restart the application.

80B20821 ERR Code=*xx*

Explanation: A BIND request was received that specified an RU size greater than 512 bytes.

User response: Correct the RU size definition at the partner and rerun the partner application.

80B21001 ERR Code=*xx*

Explanation: A critical communications error was detected. SNA communications are no longer available.

User response: Initiate a store controller dump and contact the IBM Support Center. For more information, see the *IBM 4690 OS: Programming Guide*.

80B21002 ERR Code=*xx*

Explanation: There is not enough available system memory for communications.

User response: Increase the amount of system memory or reduce the number of applications running concurrently.

80B21003 ERR Code=*xx*

Explanation: A communications link is taking longer than normal to initialize. This can occur when there is excessive resource usage by a higher-priority system or background task, or because there is a hardware or software problem associated with the link.

User response: Reduce the amount of system usage by background tasks, or delay them until after the communication link becomes active. If this does not correct the error, initiate a store controller dump and contact the IBM support group for assistance.

80B21004 through 80B21006 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80B21007 ERR Code=*xx*

Explanation: A link record is missing from the configuration.

User response: Verify that all the link records for the line are configured. If all the link records for the line are configured, initiate a store controller dump and contact the IBM Support Center for assistance.

80B21008 through 80B2100C ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80B2100D ERR Code=*xx*

Explanation: A request could not be completed because there are too many active sessions.

User response: Reduce the number of sessions.

80B2100E ERR Code=*xx*

Explanation: A request could not be completed because there are too many active sessions.

User response: Reduce the number of sessions.

80B2100F ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80B21010 ERR Code=*xx*

Explanation: An attempt was made to install C&SM more than once.

User response: Verify that your link records are configured properly.

80B21011 ERR Code=*xx*

Explanation: An open System Services Control Point (SSCP) request failed.

User response: Verify that the local and host nodes are configured properly.

80B21012 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80B21013 ERR Code=*xx*

Explanation: A duplicate partner Token-Ring or Ethernet address exists.

User response: Change the configuration link record of one of the nodes if they were configured to have the same addresses by mistake. If two applications need to run simultaneously, change the link configuration record so that both applications use the same link.

80B21015 ERR Code=*xx*

Explanation: There are no free Token-Ring or Ethernet links.

User response: Reduce the number of Token-Ring or Ethernet links enabled. Check the background screen for background applications trying to enable links when determining how many links have been enabled.

80B21100 ERR Code=*xx*

Explanation: A bad parameter value was passed on the call to a CPI communications verb issued by a transaction program verb.

User response: The programmer should find and correct the error in the transaction program (TP).

80B21101 ERR Code=*xx*

Explanation: Communication resources were exceeded.

User response: Increase the buffer memory by reconfiguring communications or reduce the communications workload.

80B21102 ERR Code=*xx*

Explanation: Communication resources were exceeded. Too many concurrent conversations were attempted (the limit is 32).

User response: Reduce the workload on the communications system, particularly the number of LU 6.2 conversations that run concurrently.

80B21103 ERR Code=*xx*

Explanation: A buffer resource problem occurred after a CPI communications verb call timed out. The conversation that issued the verb is rendered useless and the maximum number of conversations is reduced by one.

User response: Increase the buffer memory by reconfiguring communications or reduce the communications workload.

80B21104 ERR Code=*xx*

Explanation: An attempt to activate a communications link failed.

User response: If you are using a modem, check the cable connection between it and the store controller, and ensure that the modem is powered on. Next, retry the link activation. If the problem persists, contact the IBM Support Center.

80B21105 ERR Code=*xx*

Explanation: An attempt to activate a communications link failed.

User response: Check for problems with the communications hardware. If you do not find a problem, contact the IBM Support Center.

80B21106 ERR Code=*xx*

Explanation: An attempt to activate a communications link failed.

User response: Contact the IBM Support Center.

80B21107 ERR Code=*xx*

Explanation: There was a conflict in parameters on a CPI communications verb call.

User response: The programmer should find and correct the error in the transaction program (TP). Additional information can be found in the *IBM 4690 OS: Programming Guide* or the *Systems Application Architecture Common Programming Interface Communications Reference*.

80B21108 ERR Code=*xx*

Explanation: An incoming message was received for a non-existent CPI communications conversation. This may occur when a local TP has abended and a message is subsequently received for that TP.

User response: The programmer should find and correct the abend error in the LU 6.2 TP, if one occurred.

80B21109 ERR Code=*xx*

Explanation: An attempt to disable a communications link has failed.

User response: Retry the disable or issue a disable with force.

80B2110A ERR Code=*xx*

Explanation: An attempt to disable a communications link has resulted in an error that rendered the link useless.

User response: The link may not be re-enabled until after a re-IPL of the store controller.

80B2110B ERR Code=*xx*

Explanation: A background transaction program has failed to start. This return code usually indicates that the maximum number of active background applications has been reached.

User response: Cancel one of the active background applications. If the problem continues to occur, contact the IBM Support Center.

80B2110C ERR Code=*xx*

Explanation: The X.25 configuration file ADXXE??F.DAT exceeds 19,999 bytes in length.

User response: Using the system configuration utility, erase link, or line definitions until ADXXE??F.DAT is smaller than 20,000 bytes.

Note: Configuration must be activated after link or line records are erased.

80B2400D ERR Code=*xx*

Explanation: System memory was not available to allocate buffers or control blocks. This can occur when there are so many programs currently active on your system that no more memory is available.

User response: When currently running programs finish, retry your application again. If the error persists, contact your software support person for assistance.

80B30002 ERR Code=OE

Explanation: OPEN failed due to access conflict or outstanding CLOSE request. The application should always issue a CLOSE whenever a communications link is lost.

80B305E2 ERR Code=BZ

Explanation: Either all communications links are being used or the communication adapter required to service the SNA host link is already being used.

User response: Determine what other applications are running and using the required host resources. The application may then be retried after the applications using the SNA resources are complete, or another communications link and adapter can be tried if an adapter and link are available.

80B305E3 ERR Code=CR

Explanation: The configuration name specified in the application's OPEN request cannot be found or some information contained in the named configuration is not valid. The information that is checked is the communications adapter type, the communication adapter address, the interrupt level to be used by the communication adapter, and the machine type.

User response: Ensure that the application has specified the name of configuration information correctly and that it exists in the active host configuration file. If these are correct, check the information in the configuration record to ensure that the interrupt is either level 3 or level 4, that the type and address of the communication adapter is in your store controller, and that the machine type has been specified correctly. If all of these things are correct, have the communication adapter hardware checked.

80B305EA ERR Code=DO

Explanation: The requested communication adapter is not detected in the store controller.

User response: Ensure that the communication adapter is in the store controller and, if it is, check to see if it is operating properly using the appropriate diagnostic routines.

This return code may also indicate that an auxiliary console or serial printer has been configured for the IBM Realtime Interface Co-Processor/2 port that you are attempting to use.

80B305EB ERR Code=/***

Explanation: The UNIT number passed to the communication code is incorrect. A problem exists with the operating system.

User response: Initiate a store controller dump and contact your software support personnel.

80B305EC ERR Code=/***

Explanation: The function requested on a SPECIAL request to the driver is not valid. This is an error in the application code.

User response: Refer to *IBM 4680 BASIC: Language Reference* for the valid options that can be requested.

80B305ED ERR Code=OE

Explanation: The interrupt level needed to support the host communication requested is already in use.

User response: Determine what other applications are running and have access to the interrupt level being requested. Retry the application when the using application has finished.

80B305EE ERR Code=OE

Explanation: The requested host communication adapter is already being used by another application.

User response: When the using application finishes, retry the application.

Note: The host applications cannot, in general, be safely stopped with a Ctrl-Break or background control screen "stop" command; doing so risks leaving the associated communications lines in an "already in use" state until the next IPL, which would cause this error to occur if an attempt was made to use the communications line again.

80B305EF ERR Code=OE

Explanation: At the time the common communications driver was installed, no more system flags were available. This indicates that your system does not have enough resources to support communications.

User response: Contact your software support person and relay this information.

80B305F0 ERR Code=*xx*

Explanation: A communications link or line has been disabled.

User response: No user action is required.

80B305F1 ERR Code=*xx*

Explanation: A communications link or line has been permanently disabled.

User response: Re-IPL the affected store controller to recover the communications link or line.

80B305F2 ERR Code=*xx*

Explanation: A disable is pending for a communications link.

User response: No user action is required.

80B305F4 ERR Code=*xx*

Explanation: A communications link or line has been enabled.

User response: No user action is required.

80B305F5 ERR Code=*xx*

Explanation: X.25 is active. The last application using an SNA X.25 link has closed and the link was configured as non-resident (or Disable Link for an SNA X.25 link has been issued), but there are still X.25 API circuits active, so the communications driver has not been uninstalled.

User response: No action needed; the communications driver will be uninstalled when the X.25 circuit becomes inactive.

80B305F6 ERR Code=*xx*

Explanation: This is an internal X.25 API error.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80B305F7 ERR Code=*xx*

Explanation: A subarea Token-Ring or Ethernet link was enabled but the Token-Ring or Ethernet was not enabled.

User response: Enable the link again, which will enable the Token-Ring, or Ethernet, or enable the Token-Ring or Ethernet from the Communication Control Function panel.

80B305F8 ERR Code=*xx*

Explanation: An attempt was made to disable an Ethernet SNA link. Disabling Ethernet SNA links is not supported.

User response: Do not attempt to disable the Ethernet link. Disabling Ethernet SNA links is not supported. To disable an Ethernet SNA link you must IPL the controller.

80B34010 ERR Code=*xx*

Explanation: The file cannot be found.

User response: Ensure that the files are in the program directory and that they are named correctly. Then retry the program. If the problem persists, contact your software support person for assistance.

80B3400D ERR Code=*xx*

Explanation: No system memory was available to allocate buffers or control blocks. There are so many programs currently active in your system that no more memory is available.

User response: When currently running programs have finished, retry your application again. If the error continues, contact your software support person for assistance.

80B34309 ERR Code=*xx*

Explanation: The file is not valid. The host configuration file has a problem in its composition. Either there are missing directories or the directories contain data that is not valid.

User response: Rebuild your host configuration file using the configuration services program. If the problem continues, supply a copy of the host configuration file to your software support person for assistance.

80B40631 ERR Code=ID

Explanation: Data has been received that is not valid.

User response: Run a trace and contact the host site.

80B40632 ERR Code=HC

Explanation: A DISCONNECT command was received from the host while communication with the host was active. The host system has probably detected some type of error condition or communication incompatibility.

User response: Check the host for any error conditions. If none are found, review your communications line configuration to ensure that all parameters are correct. If all of these are correct and the problem persists, perform a line trace at both the store controller and host ends of the communications line and report the problem to the appropriate support group.

80B40633 ERR Code=OE

Explanation: No system event flags are available to process the request.

User response: This is a system resource problem that exists at the time a request is processed. Your application should not open more files and resources than would cause more than 32 events to take place simultaneously. Also, try running the application program when there are fewer applications active in the system. Report the problem to the system support area so that more system resources can be made available.

80B40634 ERR Code=OE

Explanation: An interrupt that is not valid has been specified.

User response: Recreate the configuration record for the communications line and validate that the interrupt level specified in the configuration record for the communications line is correct. If it is, contact your IBM Service representative.

80B40635 ERR Code=HC

Explanation: A read has been requested from the SDLC support when one already exists for the line. This is a system error.

User response: Report the error to your IBM Service representative.

80B40636 ERR Code=OE

Explanation: The connection between the store controller and the host cannot be established or has failed.

User response: If you are using modems, verify that they are functioning properly by running the tests provided by the modem's manufacturer. Next, run the diagnostics for the store controller communication adapter. Finally, verify that the host is functioning properly. If alternate hardware is available, try running on this alternate hardware. If this fails, contact your IBM Service representative.

80B40637 ERR Code=DO

Explanation: No data has been received from the host for the configuration specified. Times and all retry attempts have also failed. This indicates a problem with the communication hardware adapter, the modem, or the host.

User response: Ensure that the host is operating and check for any errors that may have been reported by it. If the problem is not found, ensure that the modem is functioning properly and that it can communicate without error to the system at the other end. If the modem is functioning properly, perform the diagnostic tests on the store controller communication adapter. If all this is correct and the problem persists, contact your IBM Service representative.

80B40638 ERR Code=DO

Explanation: An error on the store controller communication adapter was detected during the initialization process.

User response: Run the diagnostics for the adapter and verify that it is functioning properly. If it is, verify that the modem and the hardware on the host end are functioning properly. If all of this is correct, verify that your configuration is correct. Finally, if the problem persists, contact your IBM Service representative.

80B40639 ERR Code=DO

Explanation: The Data-Set-Ready indicator line is not active.

User response: Ensure that the modem has power and is operating properly. Also, verify that the communications line to the host is functioning. Check the cable between the modem in the store and the hardware adapter in the store controller. Ensure that the adapter is functioning properly when the diagnostic tests are run. Finally, ensure that the configuration information defining the line is correct. If the problem still persists, contact your IBM Service representative.

80B4063A ERR Code=HC

Explanation: The record sent by the application was either too long or too short, or the data received from the host was less than four bytes. If the data being transmitted is too long or too short, this is an application problem.

User response: Correct the program and retry. If the data received is too short and occurs frequently, this is a line problem. Tests should be run to verify the integrity of the line and that all hardware is operating properly. If the error persists, contact your IBM Service representative.

80B4063B ERR Code=*xx*

Explanation: A function that was not valid was requested. This indicates a 4690 Operating System error.

User response: Contact your IBM Service representative and have a copy of your application and your configuration ready for analysis.

80B4063C ERR Code=DO

Explanation: A Clear-To-Send signal was not received. This indicates a hardware error.

User response: First, check the modem to ensure it is functioning properly. Next, verify the store controller adapter is functioning properly using the diagnostic programs. If these are correct, change the cable between the store controller hardware adapter and the modem. If the problem persists, contact the IBM Support Center for assistance.

80B55001 ERR Code=*xx*

Explanation: An ARTIC adapter card did not respond in an allotted amount of time. This error could also occur if there is not enough memory on your ARTIC adapter card.

User response: If you are using SDLC communications on a store controller, ensure that there is a minimum of 512K of available memory on the ARTIC adapter card. If the problem persists, contact the IBM Support Center for assistance.

80B55002 ERR Code=*xx*

Explanation: A task on an ARTIC adapter card occupied more than its allotted amount of time. This error could also occur if there is not enough memory on your ARTIC adapter card.

User response: If you are using SDLC communications on a store controller, ensure that there is a minimum of 512K of available memory on the ARTIC adapter card. If the problem persists, contact the IBM Support Center for assistance.

80B55003 ERR Code=*xx*

Explanation: The control program on an ARTIC adapter card failed.

User response: Contact the IBM Support Center.

80B55004 ERR Code=*xx*

Explanation: An attempt has been made to communicate with an ARTIC adapter card that has not been initialized.

User response: Contact the IBM Support Center.

80B55005 ERR Code=*xx*

Explanation: An attempt has been made to start a task on an ARTIC adapter card that has not been initialized.

User response: Verify that the ARTIC adapter is properly configured, as specified in the *IBM 4690 OS: Planning, Installation, and Configuration Guide*. This includes the physical card number, the shared storage window and size, and the interrupt level. If configuration is correct, contact the IBM Support Center.

80B55006 ERR Code=*xx*

Explanation: An attempt has been made to load a task on an ARTIC adapter card that already has been loaded with a task.

User response: Contact the IBM Support Center.

80B90001 ERR Code=*xx*

Explanation: An attempt that was not valid was made to install the SDLC communications code. Store controller communication functions will be disabled.

User response: Initiate a store controller dump. See “Requesting a store controller storage dump” on page 359 for information.

After the store controller dump has completed, create a problem analysis diskette using the directions under “Creating a problem analysis diskette or data file” on page 368.

80B90002 ERR Code=*xx*

Explanation: The SDLC communications code on the IBM Realtime Interface Co-Processor Multiport/2 adapter has stopped functioning for a period of 30 seconds. Store controller communication functions will be disabled.

User response: Initiate a store controller dump. See “Requesting a store controller storage dump” on page 359 for instructions.

After the store controller dump has completed, create a problem analysis diskette, following the directions under “Creating a problem analysis diskette or data file” on page 368.

80B90003 ERR Code=*xx*

Explanation: The percentage of errors on an SDLC line has exceeded 10 percent.

User response: The system should normally recover from this error. If the problem continues, investigate to determine if it is being caused by the telecommunications line or modems. If this error continues to occur, contact the IBM Support Center for assistance.

80BA0002 ERR Code=*xx*

Explanation: The X.25 communications code on the IBM X.25 Interface Co-Processor/2 adapter has stopped functioning for a period of 30 seconds. Store controller communication functions will be disabled.

User response: Initiate a store controller dump. See “Requesting a store controller storage dump” on page 359 for instructions.

After the store controller dump has completed, create a problem analysis diskette, following the directions under “Creating a problem analysis diskette or data file” on page 368.

80BC0A00 through 80BC0A43 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BC0A44 ERR Code=*xx*

Explanation: There are too many configuration entries for communications.

User response: Remove the entries not being used and repeat the operation that failed.

If the error continues to occur, contact the IBM Support Center.

80BC0A45 through 80BC0B01 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BC0B02 ERR Code=*xx*

Explanation: This error occurs during communications initialization if there is insufficient memory for the communication buffers defined in the communications configuration.

User response: Increase the amount of store controller memory or decrease the amount of memory requested for SNA buffers on the DEFINE SNA MEMORY ALLOCATION panel under Controller Configuration.

If the error continues to occur, contact the IBM Support Center.

80BC0B40

and

80BC0B41 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BC0B42 ERR Code=*xx*

Explanation: An error has been detected by a communications link driver.

User response: If the severity is 4, this error is caused by the stopping of the link by the user. If the severity is 2, initiate a store controller dump and contact the IBM Support Center for assistance.

80BC0B43 through 80BC0BC3 80BC0BC3 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BC0BC4 ERR Code=*xx*

Explanation: A critical communications error has occurred. There is not enough memory to support the configured SNA functions.

User response: Reconfigure communications to increase the memory available for SNA functions or eliminate unnecessary communications configurations. If the error continues to occur, contact the IBM Support Center.

80BC0BC5 ERR Code=*xx*

Explanation: A critical communications error has occurred. The communications system has used too much of the store controller's memory.

User response: Re-IPL the store controller. If the error continues to occur, contact the IBM Support Center.

80BC0BC6 through 80BC1101 ERR Code=*xx*

Explanation: A critical communications error has occurred.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance. For more information, see the "Communications Dump" keyword section in the *IBM 4690 OS: Planning, Installation, and Configuration Guide*.

80BC1102 ERR Code=*xx*

Explanation: A critical communications error has occurred. The maximum limits for lines, links, sessions and so on, may have been exceeded.

User response: Reduce the number of lines, links, sessions and so on. If the problem continues to occur, initiate a store controller dump and contact the IBM Support Center.

80BC1103 through 80BC1117 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BC1118 ERR Code=*xx*

Explanation: A negative SNA response was received from the host.

User response:
- Check the application code to ensure that the SNA protocols are being followed
- Check that the correct communications configuration is being used
- If the error continues to occur, contact the IBM Support Center.

80BC1120 ERR Code=*xx*

Explanation: The conversation partner has sent an SNA message that did not contain a Request Header (RH) or a Request Unit (RU). The message will be discarded by the SNA layer.

User response: Contact the IBM Support Center.

80BC1121 ERR Code=*xx*

Explanation: The conversation partner has sent a message with a Transmission Header (TH) that is not valid.

User response: Follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center.

80BC1122 ERR Code=*xx*

Explanation: A Request Header (RH) was not contained as expected on an SNA message.

User response: Follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center.

80BC1123 ERR Code=*xx*

Explanation: A negative SNA response was received. The SNA layer logs all negative responses received from conversation partner Logical Units (LUs) as part of its internal statistics. The Error Qualifier 1 and 2 fields in the system log gives the SNA sense codes received on the negative response.

User response: Expect other errors to follow giving more detailed information about the negative response received.

80BC1124 ERR Code=*xx*

Explanation: A negative SNA response was sent. The SNA layer logs all negative responses sent to conversation partner LUs as part of its internal statistics. The Error Qualifier 1 and 2 fields in the system log gives the SNA sense codes received on the negative response.

User response: Expect this error to be preceded by others giving more detailed information about the negative response received.

80BC1130 ERR Code=*xx*

Explanation: An SNA pacing error occurred. If this error is logged for an LU 6.2 session, it may indicate an error in the remote software. The pacing count held by SNA exceeds the size of the receive pacing window specified in the BIND. This is likely caused by the remote LU sending more than one pacing request within a window.

User response: If this error occurs frequently, initiate a communications line trace and check if the conversation partner LU is functioning according to the pacing parameters listed in the BIND. If the error continues to occur, contact the IBM Support Center.

80BC1131 ERR Code=*xx*

Explanation: An unsupported network control message was received and rejected by SNA.

User response: No user action is necessary.

80BC1132 ERR Code=*xx*

Explanation: A Function Management Data (FMD) or Data-Flow Control (DFC) request was received while the relevant session was active but its traffic state was inactive.

User response: Check the host application code to ensure that data traffic will begin before data transfer begins. The Error Qualifier 1 and 2 fields in the system log record contain the SNA sense codes. If the error continues to occur, contact the IBM Support Center.

80BC1133 ERR Code=*xx*

Explanation: A request has been received with an unexpected sequence number. The relevant session is deactivated (unbound).

User response: Contact the IBM Support Center.

80BC1134 ERR Code=*xx*

Explanation: A SC request that is not valid has been received.

User response: Contact the IBM Support Center.

80BC1135 ERR Code=*xx*

Explanation: A Session Control (SC) response that is not valid has been received.

User response: Contact the IBM Support Center.

80BC1136 ERR Code=*xx*

Explanation: An unsupported CLEAR has been received.

User response: Ensure that the remote application is using the correct protocols. If this error continues to occur, contact the IBM Support Center.

80BC1137 ERR Code=*xx*

Explanation: An unsupported Start Data Traffic (SDT) has been received.

User response: Ensure that the remote application is using the correct protocols. If this error continues to occur, contact the IBM Support Center.

80BC1138 ERR Code=*xx*

Explanation: An unsupported Set and Test Sequence Numbers (STSN) has been received.

User response: Ensure that the remote application is using the correct protocols. If this error continues to occur, contact the IBM Support Center.

80BC1139 ERR Code=*xx*

Explanation: A Set and Test Sequence Numbers (STSN) was received when data traffic was active.

User response: Ensure that the host application is using the correct protocols for STSN. If this error continues to occur, contact the IBM Support Center.

80BC113A ERR Code=*xx*

Explanation: An unsupported Request Recovery (RQR) was received.

User response: Ensure that the host application is using the correct protocols. If this error continues to occur, contact the IBM Support Center.

80BC1140 ERR Code=*xx*

Explanation: An unexpected response or SIGNAL was received from a conversation partner.

User response: This error does not usually require user action and it will be discarded. However, if this error continues to occur, contact the IBM Support Center.

80BC1141 ERR Code=*xx*

Explanation: The partner LU has violated the Function Management (FM) and Transmission Services (TS) profiles set for the session. SNA will unbind the session. An error is indicated in the partner LU or partner application code.

User response: See the Error Qualifier 1 and 2 fields in the system log. They give the SNA sense codes that were reported. These sense codes will give an indication of the FM and TS profiles violated.

80BC1142 ERR Code=*xx*

Explanation: The host has violated the FM and TS profiles set for the System Service Control Point (SSCP)-Physical Unit (PU) or the SSCP-LU session. This indicates an error in the host code.

User response: See the Error Qualifier 1 and 2 fields in the system log. They give the SNA sense codes that were reported. These sense codes will give an indication of the FM and TS profiles violated. Also, check the appropriate areas of the host code.

80BC1144 through 80BC1151 80BC1151 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BC1152 ERR Code=*xx*

Explanation: A communication link outage has occurred.

User response: Trace the communications line to determine if an SNA or X.25 partner or network is working. If you are using an MPCA or ARTIC card, trace the line by using the Communications Line Trace function. It is helpful to have knowledge of the SNA or X.25 communications protocol.

The Error Qualifier 1 field in the system log record contains a code needed to determine the cause of the outage and the action to be taken. The possible codes are listed in the following table:

Error Qualifier 1	Explanation	User Response
06	An outage has occurred because of a link driver error.	This message is the result of a previously reported link driver error. No further action is necessary.
0D	An error has been detected by the communications software.	Initiate a store controller dump and contact the IBM Support Center for assistance.
11	A Data Set Ready failure occurred.	Verify that your modem is functioning correctly. If the error continues to occur, contact the IBM Support Center for assistance.
12	A Clear to Send failure occurred.	Verify that your modem is functioning correctly. If the error continues to occur, contact the IBM Support Center for assistance.

Error Qualifier 1	Explanation	User Response
14	A Data Carrier Detect failure occurred.	Verify that your modem is functioning correctly. If the error continues to occur, contact the IBM Support Center for assistance.
15	A disconnect was received.	Verify that the partner LU is functioning properly.
18	Timed out waiting for command	Verify that the X.25 network and partner are functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.
23	A Receive Buffer was overrun.	Increase the memory allocated for SNA communications in communications configuration. If the error continues to occur, contact the IBM Support Center for assistance.
24	An Inactivity Timeout occurred.	Increase the Inactivity Timeout count for the communications line experiencing the problem. Also, verify that the partner is operating properly. If the error continues to occur, contact the IBM Support Center for assistance.
25	An Idle Timeout occurred.	If the error continues to occur, contact the IBM Support Center for assistance.
29	A connection problem exists.	• If the retry limit for information frames was exceeded, verify that the partner node and modems are operational. • If XID exchange did not complete properly, verify that the partner node and modems are operational. If the error continues to occur, contact the IBM Support Center for assistance.
2C	A command was rejected.	Verify that the partner is functioning properly.
2D	An Abnormal Modem Response failure occurred.	Verify that your modem is functioning correctly. If the error continues to occur, contact the IBM Support Center for assistance.
2E	An Inactivity Timeout occurred.	Increase the Inactivity Timeout count for the communications line experiencing the problem. Also, verify that the partner is operating properly. If the error continues to occur, contact the IBM Support Center for assistance.
30 through 33	An internal Token-Ring or Ethernet software error has occurred.	Initiate a store controller dump and contact the IBM Support Center for assistance.
35	X.25 CALL response timed out.	Verify that the X.25 network and partner are functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.
37	An unknown packet was received or a protocol error occurred.	Verify that the partner LU is functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.
60	A Virtual Circuit has been RESET.	Verify that the X.25 network and partner are functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.

Error Qualifier 1	Explanation	User Response
61	A Virtual Circuit has been RESET.	Verify that the X.25 network and partner are functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.
62	A CALL attempt has been CLEARED.	Verify that the X.25 network and partner are functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.
63	The 4690 initiated CALL CLEAR.	Verify that the X.25 network and partner are functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.
64	The 4690 initiated RESET.	Verify that the X.25 network and partner are functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.
80	A partner is in disconnect mode.	Determine why the partner is in disconnect mode. If the error cannot be determined, contact the IBM Support Center for assistance.
81	The Disconnect Retry limit was exceeded.	Verify that the partner is operational. If the error continues to occur, contact the IBM Support Center for assistance.
82	The Contact Retry limit was exceeded.	Verify that the partner is operational. If the error cannot be determined, contact the IBM Support Center for assistance.
84	The No Response Retry limit was exceeded.	Verify that the partner is operational. If the error cannot be determined, contact the IBM Support Center for assistance.
85	The Remote Busy Retry limit was exceeded.	Verify that the partner is busy. If the partner is busy, this is a normal response. If the partner is not busy, contact the IBM Support Center for assistance.
86	A Frame was rejected by the partner.	Take a communications line trace and determine why the frame is being rejected. If the error cannot be determined, contact the IBM Support Center for assistance.
87	A Frame that was not valid was received.	Take a communications line trace and determine why the frame that was not valid was sent by the partner. If the error cannot be determined, contact the IBM Support Center for assistance.
88	A Request Initialization Mode frame was received.	Verify that the partner LU is functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.
89	A Request Disconnect frame was received.	Verify that the partner LU is functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.
A0	The QXID Retry limit was exceeded.	Verify that the X.25 network and partner LU are functioning properly. If the error cannot be determined, contact the IBM Support Center for assistance.

Error Qualifier 1	Explanation	User Response
A7	Token-Ring Timer or Ethernet Ti has expired.	The host or partner did not respond (for example, with an RR) before the Inactivity Timer expired. If the problem continues, contact the IBM Support Center for assistance.
AC	A Token-Ring or Ethernet Frame Reject was sent.	This is a DLC protocol error. Contact the IBM Support Center for assistance.
AD	A Token-Ring or Ethernet Frame Reject was received.	This is a DLC protocol error. Contact the IBM Support Center for assistance.
AE	A Token-Ring or Ethernet DISC or DM was received.	The remote host or partner is attempting to terminate the connection. If the problem continues, contact the IBM Support Center for assistance.
AF	A Token-Ring or Ethernet link was lost.	Check the status of the remote host or partner, and all connecting hardware and software. If the problem continues, contact the IBM Support Center for assistance.

80BC1160 through 80BC1162 80BC1162 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BC1170 ERR Code=*xx*

Explanation: The local LU and partner LU attempted to initiate a Change Number of Sessions (CNOS) exchange at the same time. The local LU was allowed to initiate its CNOS exchange.

User response: No user action is required.

80BC1171 ERR Code=*xx*

Explanation: The local LU and partner LU attempted to initiate a Change Number of Sessions (CNOS) exchange at the same time. The remote LU was allowed to initiate its CNOS exchange.

User response: No user action is required.

80BC1172 ERR Code=*xx*

Explanation: This is a CNOS conversation failure. An LU 6.2 conversation that was being used to process a CNOS exchange has failed.

User response: Other return codes giving reasons for the failure will follow.

80BC1173 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC1174 ERR Code=*xx*

Explanation: A CNOS verb was issued with either missing parameters or parameters that are not valid.

User response: Follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC1175 ERR Code=*xx*

Explanation: A CNOS that was not valid command was received from the partner LU.

User response: Correct the problem at the partner LU by checking its configuration or program.

80BC1176 ERR Code=*xx*

Explanation: A local CNOS command failed.

User response: Follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC1177 through 80BC1184 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC1188 through 80BC118B ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BC118C ERR Code=*xx*

Explanation: There are no free LUs in the LU group for the 3270 emulator. All of the LUs in the group specified in an Open (for System Services Control Point (SSCP)) are in use. The Open request can be retried later.

User response: Check that the Session Groups in the system configuration are correct.

80BC118D ERR Code=*xx*

Explanation: The partner LU has sent a BIND that neither SNA nor the local application can accept.

User response:
- Check that the system configuration is correct.
- Check that the partner LU is correctly configured.
- Check that the application is using the BIND parameters correctly.
- If the problem cannot be determined, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC11A0 ERR Code=*xx*

Explanation: A negative INITSELF (Initiate Self) response has been received from the host.

User response: Ensure that the communications configuration is correct. If it is correct and the error continues to occur, contact the IBM Support Center.

80BC11A1 ERR Code=*xx*

Explanation: SNA was unable to activate an LU 6.2 session because either a free active link could not be found or an inactive link was activated or the SSCP – LU was inactive.

The Error Qualifier 1 field in the system log gives the reason for this error as follows:

Error Qualifier 1	**Explanation**
0002	The link was deactivated.
0003	There is no active SSCP-LU session.
0005	No free link could be found.
0006	Automatic CNOS has failed.

User response: Ensure that the relevant LU is configured and activated at the partner and that the system

configuration contains a link that may be used to connect to the appropriate PU. If the error continues to occur, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC11A2 ERR Code=*xx*

Explanation: A session activation attempt has failed because the LU mode session limits would have been exceeded. The session activation may have been locally or remotely initiated.

User response: For single session LUs, ensure that the remote LU is correctly configured.

For multiple session LUs, the session limits may have been changed by a CNOS exchange or the CNOS may have failed.

If the error continues to occur, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC11A3 ERR Code=*xx*

Explanation: The partner has sent SSCP data or an NOTIFY request that is not valid to an LU 6.2.

User response: Check that your partners’ configuration is correct. Error Qualifier fields 1 and 2 of the system log record contain the SNA sense codes that you can use to determine the nature of this message.

If the error continues to occur, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC11A4 ERR Code=*xx*

Explanation: The partner has sent a NOTIFY request to inform SNA that it cannot activate a session.

User response: The Error Qualifier 1 and 2 fields logged in the system log have the SNA sense code that you can use to determine the nature of this error.

Also, check that the controller and partner configurations are consistent. If the error continues to occur, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC11A5 ERR Code=*xx*

Explanation: This message does not indicate an error condition. The local and remote LUs attempted to activate a session simultaneously. Only one LU will be allowed to activate a session. Error Qualifier fields 1 and 2 of the system log record contain the SNA sense codes that you can use to determine the nature of this error.

80BC11A6 ERR Code=*xx*

Explanation: SNA has rejected an LU 6.2 BIND request from a partner LU. Activating the session would cause the session limits to be exceeded.

User response:
- Check that the communications configuration at the store controller is correct.
- Check that the local and partner LUs have the same session limits and that any previous CNOS exchanges were successful.

If the session limits have been correctly configured, then a problem may exist in the partner LU. Error Qualifier fields 1 and 2 of the system log record contain the SNA sense codes that you can use to determine the nature of this error. If the error continues to occur, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC11A7 ERR Code=*xx*

Explanation: SNA has rejected an LU 6.2 BIND request from a partner LU because the specified parameters were unacceptable.

User response:
- Check that the communications configuration at the store controller is correct.
- Check that the LU and mode definitions at the partner agree with the local configuration.

- Error Qualifier fields 1 and 2 of the system log record contain the SNA sense codes that you can use to determine the nature of this error.

If you cannot find an error, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC11A8 ERR Code=*xx*

Explanation: The LU has rejected an LU 6.2 BIND request from SNA.

User response:
- Check the Error Qualifier 1 and 2 fields logged in the system log. They may indicate that the BIND was rejected because session limits were exceeded.
- Check that the LU and mode definitions at the partner agree with the local configuration.
- Error Qualifier fields 1 and 2 of the system log record contain the SNA sense codes that you can use to determine the nature of this error.

If you cannot find an error, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC11A9 ERR Code=*xx*

Explanation: SNA has rejected an LU 6.2 BIND request from a partner LU because the specified parameters were unacceptable. SNA deactivates (unbinds) the session.

User response:
- Check the Error Qualifier 1 and 2 fields logged in the system log, as they give the sense code indicating the reason for the rejection.
- Check that the LU and Mode definitions at the partner agree with the local configuration.
- Error Qualifier fields 1 and 2 of the system log record contain the SNA sense codes that you can use to determine the nature of this error.

If you cannot find an error, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BC11AA ERR Code=*xx*

Explanation: SNA was unable to activate an LU 6.2 session with a partner because the link it required was deactivating. This error will probably be accompanied by another indicating the reason for the link deactivation (for example, W857 with a return code of 80BC1152). An attempt to activate the session later will cause the link to be reactivated.

User response: No user action is necessary.

80BC11AB ERR Code=*xx*

Explanation: SNA was unable to activate an LU 6.2 session with a partner because the LU had not been activated within the configuration timeout period.

User response:
- Ensure that the relevant LU is correctly configured at the partner.
- Check that the Inactivity Timeout count defined in configuration is set at a reasonable value.

80BC11B0 ERR Code=*xx*

Explanation: SNA has rejected a BID request from a partner LU for the use of a session because SNA requires the session for a locally initiated conversation.

User response: Try the BID request again.

Error Qualifier fields 1 and 2 of the system log record contain the SNA sense codes that you can use to determine the nature of this error.

If you cannot resolve this error, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center.

80BC11B1 ERR Code=*xx*

Explanation: The partner LU sent a BID or Begin Bracket (BB) request that failed the receive checks.

User response: Error Qualifier fields 1 and 2 of the system log record contain the SNA sense codes that you can use to determine the nature of this error.

If you cannot resolve this error, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center.

80BC11B2 ERR Code=*xx*

Explanation: The partner LU sent a Bracket Initiation Stopped (BIS) reply that was not valid. SNA will deactivate (unbind) the session.

User response: Check the code of the partner LU for errors in BIS processing.

If you cannot resolve this error, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center.

80BC11B3 ERR Code=*xx*

Explanation: The partner LU sent an unexpected Bracket Initiation Stopped (BIS) request. SNA will deactivate (unbind) the session.

User response: Check the code of the partner LU for errors in BIS processing.

If you cannot resolve this error, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center.

80BC11B4 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: If you cannot resolve this error, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center.

80BC11B5 ERR Code=*xx*

Explanation: The partner LU sent an unexpected Ready to Receive (RTR) request. SNA will deactivate (unbind) the session.

User response: Check the code of the partner LU for errors in RTR processing.

If you cannot resolve this error, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center.

80BC11C0 ERR Code=*xx*

Explanation: The partner TP has rejected a request or data sent by the local TP. The conversation may be deallocated, but the underlying session should remain intact.

User response: The Error Qualifier 1 and 2 fields logged in the system log have the sense codes that you can use to determine the nature of this error.

If you cannot resolve this error, contact the IBM Support Center.

80BC11C1 ERR Code=*xx*

Explanation: SNA has rejected a request or data sent by the partner TP. The conversation may be deallocated, but the underlying session should remain intact.

User response: The Error Qualifier 1 and 2 fields logged in the system log have the sense codes that you can use to determine the nature of this error.

If you cannot determine the cause for this error, contact the IBM Support Center.

80BC11C2 ERR Code=*xx*

Explanation: The partner TP has violated LU 6.2 protocol. For example, the partner TP may have sent a Function Management Header (FMH)-5 or FMH-7 that was not valid or sent a General Data Stream (GDS) length that was not valid. SNA will deactivate (unbind) the session.

User response:
- Check that the partner is correctly configured.
- Ensure that the local transaction programs are compatible with their partners.

The Error Qualifier 1 and 2 fields logged in the system log have the sense codes that you can use to determine the nature of this error.

If you cannot determine the cause of this error, contact the IBM Support Center.

80BC11C3

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and

80BC11C4 80BC11C4 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BC11C5 ERR Code=*xx*

Explanation: The local TP issued a verb with a parameter that was not valid. SNA will deallocate the conversation, but will leave the underlying session active.

User response: Check the code of the local TP.

If you cannot determine the cause of this error, initiate a store controller dump and contact the IBM Support Center.

80BC11D0 ERR Code=*xx*

Explanation: The partner TP has misused LU 6.2 verb parameters. A value of SEND on the What_Received parameter of a Receive_and_Wait verb was expected but not received. SNA will deallocate the conversation, but will leave the underlying session active.

User response: Check the code of the local TP.

If you cannot determine the cause of this error, initiate a store controller dump and contact the IBM Support Center.

80BC11D1 ERR Code=*xx*

Explanation: The partner TP has misused LU 6.2 verb formats. SNA will deallocate the conversation, but will leave the underlying session active.

User response: Check the code of the local TP.

If you cannot determine the cause of this error, initiate a store controller dump and contact the IBM Support Center.

80BC11D2 ERR Code=*xx*

Explanation: The partner TP has misused LU 6.2 verb parameters. The partner TP has incorrectly reported a mapping error on the LU 6.2 conversation. SNA will deallocate the conversation, but will leave the underlying session active.

User response: Check the code of the local TP.

If you cannot determine the cause of this error, initiate a store controller dump and contact the IBM Support Center.

80BC11D3 ERR Code=*xx*

Explanation: The partner TP has misused LU 6.2 verb parameters. A return code generated from a Function Management Header (FMH)-7, received by BC-PS and passed to MC-PS was not valid. SNA will deallocate the conversation, but will leave the underlying session active.

User response: Check the code of the local TP.

If you cannot determine the cause of this error, initiate a store controller dump and contact the IBM Support Center.

80BC11E0 and 80BC11E1 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BD0100 ERR Code=*xx*

Explanation: The SNA driver failed to initialize the SDLC link. There may be a hardware or modem problem.

User response: Inspect the hardware and attempt the operation again. If the error continues to occur, contact the IBM Support Center.

80BD0140 through 80BD0148 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BD0149 ERR Code=*xx*

Explanation: This message may occur if a partner node attempts to terminate communication while this store controller is transmitting data. This message does not indicate an error condition unless it occurs repeatedly.

User response: If the message continues to occur, follow “Problem data collection procedure 8” on page 357 and contact the IBM Support Center for assistance.

80BD014A ERR Code=*xx*

Explanation: An SDLC frame was received with a N/R (Next Receive Count) that is not valid.

User response: If the message continues to occur, follow “Problem data collection procedure 8” on page 357 and contact the IBM Support Center for assistance.

80BD014B through 80BD014E ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BE0100 through 80BE0106 ERR Code=*xx*

Explanation: A critical error was detected in the X.25 communication system. SNA communications are no longer available.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance. For more information see the “Communications Dump” keyword in the “Store Controller Configuration Keyword” section of the *IBM 4690 OS: Planning, Installation, and Configuration Guide*.

80BE0107 through 80BE010E ERR Code=*xx*

Explanation: The X.25 communication system has detected incorrect configuration information.

User response: Initiate a store controller dump and copy files ADXXE*??*F.DAT, ADXDS*??*F.DAT, and ADXXZ*??*F.DAT from the ADX_SPGM subdirectory to a diskette (where *??* is the store controller ID). Contact the IBM Support Center for assistance.

80BE010F through 80BE0110 ERR Code=*xx*

Explanation: An internal X.25 error has occurred. The X.25 communication system normally recovers from this error.

User response: If the problem continues to occur, initiate a store controller dump and contact the IBM Support Center for assistance.

80BE0111 through 80BE0114 ERR Code=*xx*

Explanation: An X.25 packet that is not valid has been received. The X.25 communication system normally recovers from this error.

User response: If this error continues to occur, follow “Problem data collection procedure 8” on page 357 and contact the IBM Support Center for assistance.

80BE0115 ERR Code=*xx*

Explanation: An internal X.25 error has occurred. The X.25 communication system normally recovers from this error.

User response: If the problem continues to occur, initiate a store controller dump and contact the IBM Support Center for assistance.

80BE0116 ERR Code=*xx*

Explanation: An internal X.25 error has occurred.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BE0117 ERR Code=*xx*

Explanation: The X.25 communication system encountered a storage buffer shortage. The X.25 communication system normally recovers from this error.

User response: If the problem continues to occur, initiate a store controller dump and contact the IBM Support Center for assistance.

80BE0118 through 80BE011A ERR Code=*xx*

Explanation: An internal X.25 error has occurred. The X.25 communication system normally recovers from this error.

User response: If the problem continues to occur, initiate a store controller dump and contact the IBM Support Center for assistance.

80BE011B through 80BE011C ERR Code=*xx*

Explanation: An internal X.25 error has occurred.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BE011D through 80BE0120 ERR Code=*xx*

Explanation: An internal X.25 error has occurred. The X.25 communication system normally recovers from this error.

User response: If the problem continues to occur, initiate a store controller dump and contact the IBM Support Center for assistance.

80BE0121 ERR Code=*xx*

Explanation: A critical error was detected in the X.25 communication system. SNA communications are no longer available.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance. For more information see the “Communications Dump” keyword in the “Store Controller Configuration Keyword” section of the *IBM 4690 OS: Planning, Installation, and Configuration Guide*.

80BE0122 ERR Code=*xx*

Explanation: The X.25 communication system encountered a storage buffer shortage. The X.25 communication system normally recovers from this error.

User response: If the problem continues to occur, initiate a store controller dump and contact the IBM Support Center for assistance.

80BE0123

and

80BE0124 ERR Code=*xx*

Explanation: An internal X.25 error has occurred. The X.25 communication system normally recovers from this error.

User response: If the problem continues to occur, initiate a store controller dump and contact the IBM Support Center for assistance.

80BE0125 ERR Code=*xx*

Explanation: A critical error was detected in the X.25 communication system. SNA communications are no longer available.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance. For more information see the “Communications Dump” keyword in the “Store Controller Configuration Keyword” section of the *IBM 4690 OS: Planning, Installation, and Configuration Guide*.

80BE0126 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BE0140 through 80BE0149 ERR Code=*xx*

Explanation: An X.25 packet that is not valid has been received. The X.25 communication system normally recovers from this error.

User response: If this error continues to occur, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BE015C through 80BE015E ERR Code=*xx*

Explanation: An internal X.25 error has occurred. The X.25 communication system normally recovers from this error.

User response: If the problem continues to occur, follow “Problem data collection procedure 8” on page 357 and contact the IBM Support Center for assistance.

80BE01AF through 80BE01B7 ERR Code=*xx*

Explanation: An X.25 packet that is not valid has been received. The X.25 communication system normally recovers from this error.

User response: If this error continues to occur, follow “Problem data collection procedure 10” on page 358 and contact the IBM Support Center for assistance.

80BE01FF ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

80BE0400 ERR Code=*xx*

Explanation: The modem was powered Off or the modem cable was not connected to the IBM X.25 Interface Co-Processor/2 adapter when the X.25 driver was installed.

User response: Ensure that the modem is powered On, that the modem cable is connected, and that the modem is operational.

80BE0401 ERR Code=*xx*

Explanation: Data Set Ready (DSR) was lost at the IBM X.25 Interface Co-Processor/2 adapter.

User response: Ensure that the modem is powered on, that the modem cable is connected and that the modem is operational.

80BE0402 ERR Code=*xx*

Explanation: DSR was lost and then returned at the IBM X.25 Interface Co-Processor/2 adapter. This return code occurs when the problem indicated by 80BE0401 is solved.

User response: No action is necessary.

80BE0403 ERR Code=*xx*

Explanation: The percentage of errors on the X.25 line has exceeded 10 percent.

User response: The system should normally recover from this error. If the problem continues, investigate to determine if it is being caused by the telecommunications line or by the modems. If this error continues to occur, contact the IBM Support Center for assistance.

80BE0A42 through 80BE0F42 ERR Code=*xx*

Explanation: An error has been detected by the communications software.

User response: Initiate a store controller dump and contact the IBM Support Center for assistance.

Optical Drive Return Codes

This list provides an explanation and user response for the optical drive return codes issued by the operating system.

80Bxxxxx

The return code is generated from the sense data returned from the device. The sense data is shown as 3 bytes:

Sense Key
Additional Sense Code
Qualifier

The sense data is used for problem determination and should be ignored by the user.

If you receive an 80E43*xxx* return code that is not in the list, look for a similar return code with a different number in the sixth position. If you receive an 80E40*xxx* or 80E44*xxx* return code that is not in the list, look for the last four digits of the return code in "All Other Return Codes" on page 340.

80210009 Sense Data: N/A

Explanation: The optical drive is powered Off.

This normally indicates a user problem.

User response: Make sure that the optical drive is powered On or is connected to the store controller power cable.

8021000C Sense Data: N/A

Explanation: Power on self test indicates that the device is defective.

This normally indicates a hardware problem with the optical drive.

User response: Contact your IBM Service representative.

80E40000 Sense Data: xx 27 xx

Explanation: A write operation was attempted to a write-protected optical cartridge or ROM area.

This normally indicates a user error.

User response: Check for a write-protected or O-ROM optical cartridge. If this is not the cause of the problem, contact your IBM Service representative.

80E40001 Sense Data: N/A

Explanation: An attempt was made to install more optical drives than are supported or to install an optical drive a second time.

This normally indicates a user problem.

User response: Run the reference diskette. Make sure you only have one optical drive configured. If more than one is configured, remove all but one. This may only require changing the field "KEEP" to "REMOVE".

80E40002 Sense Data: xx 3A xx

Explanation: The optical cartridge is unloaded or is not present.

This normally indicates a user error.

User response: Check for a missing optical cartridge. If this is not the cause of the problem, contact your IBM Service representative.

80E40004 Sense Data: xx 10 xx

Explanation: A read error (CRC) was detected in the ID field of a sector during a read or write operation. This error is also reported when a pseudo sector mark is detected.

This normally indicates a hardware problem with the optical cartridge.

User response: Format the optical disk using the long format option. If the problem continues, replace the optical cartridge. If the problem still persists, contact your IBM Service representative.

80E40006 Sense Data: xx 15 xx or N/A

Explanation: Seek Positioning error. This error occurs when positioning to a new location has failed and the number of retries have been exhausted. This error can also occur if an attempt is made to read or write a sector that is out of the range of valid sectors on the optical cartridge.

This normally indicates a hardware problem with the optical cartridge.

User response: Format the optical disk using the long format option. If the problem continues, replace the optical cartridge. If the error still persists, contact your IBM Service representative.

80E40007 Sense Data: xx 30 xx

Explanation: The mounted optical disk was incompatible with the capabilities of the optical drive.

This normally indicates a user error.

User response: Format the optical disk using the operating system. If the problem continues, make sure you are using a compatible optical cartridge. If the optical cartridge is compatible, replace it. If the problem continues, contact your IBM Service representative.

80E40008 Sense Data: xx 01 xx

Explanation: No Index/Sector Signal. No sector mark found.

This normally indicates a hardware problem with the optical cartridge.

User response: Format the optical disk using the long format option. If the problem persists, replace the optical cartridge. If the problem continues, contact your IBM Service representative.

80E4000A Sense Data: xx 03 xx

Explanation: Write fault.

This normally indicates a hardware problem with the optical cartridge.

User response: Format the optical disk using the long format option. If the problem continues, replace the optical cartridge. If the problem still persists, contact your IBM Service representative.

80E4000B Sense Data: xx 11 xx

Explanation: A read error occurred in the data field of a sector and the error recovery mechanism was unable to correct the error.

This normally indicates a hardware problem with the optical cartridge or optical drive.

User response: Format the optical disk using the long format option. If the problem continues, replace the optical cartridge. If the problem still persists, contact your IBM Service representative.

80E4000E Sense Data: xx 28 xx, xx 29 xx, or xx 2A xx

Explanation: One of the following events has occurred:

1. A change was made to the optical disk that could have resulted from a Format command or “not ready to ready” transition. It could also indicate that the optical cartridge needs cleaning.
2. A power-on reset or a bus device reset has occurred.
3. Mode select parameters changed. This condition occurs when one or more mode select parameters were changed.

This is not an error condition. It indicates that the drive has experienced a change of state that requires the drive to be re-opened. The software automatically retries the command when receiving this return code so the user should normally not see this code. It may have been caused by short, rapid power line disturbances (PLDs).

User response: Retry the command.

80E40800 Sense Data: N/A

Explanation: An attempt was made to open or use the optical drive and a drive was never installed.

User response: Check the System Event Log for a W673, W674, or W675 message. Base your response on these messages.

80E40801 Sense Data: N/A

Explanation: An error occurred and a second error occurred while trying to find out the reason for the first error.

User response: Retry the command or try a different command to obtain a known return code that may point to the real problem.

80E43001 Sense Data: 00 xx xx

Explanation: An error occurred but the reason for the error was lost. The device was reset before the sense data could be queried.

User response: Retry the command or try a different command to obtain a known return code that may point to the problem. If the device is a supported optical drive, you may need a more recent software driver. If you already have the most recent software, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E4301E Sense Data: 00 00 00

Explanation: A error occurred but the reason for the error was lost. The device was reset before the sense data could be queried.

User response: Retry the command or try a different command in order to obtain a known return code that may point to the problem.

80E43201 Sense Data: 02 xx xx

Explanation: Unknown sense data from the optical drive.

This usually indicates that the optical cartridge could not be accessed.

User response: Retry the command or try a different command in order to obtain a known return code that may point to the problem. If the device is a supported optical drive, you may need a more recent software driver. If you already have the most recent software, initiate a store controller dump immediately after recreating the problem, and contact the IBM Support Center.

80E43202 Sense Data: 02 04 00

Explanation: Logical Unit is not ready. Cause not reportable. The control tracks on the disk could not be read.

This normally indicates that the optical drive or optical cartridge needs cleaning, the wrong media was inserted, or there is a hardware problem with the optical cartridge.

User response: Try a new optical cartridge. If the error continues, clean the drive. If the problem is now fixed, clean the original optical cartridge and try it again. If the problem continues, after you have cleaned the cartridge and the drive, contact your IBM Service representative.

80E4321F Sense Data: 02 83 00

Explanation: Optical drive is too hot.

User response: Eject the disk, turn Off the power, and wait until the optical drive cools down. Eliminate the causes of the temperature elevation and retry the operation.

80E43301 Sense Data: 03 xx xx

Explanation: Unknown sense data from the optical drive.

This normally indicates a hardware problem with the optical cartridge.

User response: Retry the command or try a different command in order to get a known return code that may point to the problem. If the device is a supported optical drive, you may need a more recent software driver. If you already have the most recent software, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43304 Sense Data: 03 09 00

Explanation: Track following error. This error occurs when the positioning of the actuator cannot be maintained over a given track. This error can also occur if the focus is dropped due to defect on optical disk or any other optical drive fault.

This normally indicates a hardware problem with the optical cartridge.

User response: Try a new optical cartridge in the optical drive. If the error continues, clean the drive. If the problem is fixed, try using the original optical cartridge. If the problem still persists, contact your IBM Service representative.

80E43306 Sense Data: 03 16 xx

Explanation: Data synchronization mark error. This error occurs when the sync field at the beginning of the data field cannot be detected.

This normally indicates a hardware problem with the optical cartridge.

User response: Format the optical disk using the long format option. If the problem continues, replace the optical cartridge. If the problem still persists, contact your IBM Service representative.

80E43307 Sense Data: 03 19 00

Explanation: Defect List Error - any error in the Defect Management Table.

This normally indicates a hardware problem with the optical cartridge.

User response: Format the optical disk using the long format option. If the problem continues, replace the optical cartridge. If the problem still persists, contact your IBM Service representative.

80E43309 Sense Data: 03 32 00

Explanation: The format command did not complete successfully because it was unable to locate an available spare sector. This could be a result of the maximum spare sector count allowed being exhausted or the number of allocated spare sectors being exhausted.

This normally indicates a hardware problem with the optical cartridge.

User response: Format the optical disk using the long format option. If the problem persists, replace the optical cartridge. If the problem still persists, contact your IBM Service representative.

80E4330A Sense Data: 03 32 01

Explanation: Automatic Read/Write reassignment failed 3 times on the same operation.

This normally indicates a hardware problem with the optical cartridge.

User response: Format the optical disk using the long format option. If the problem persists, replace the optical cartridge. If the problem still persists, contact your IBM Service representative.

80E43314 Sense Data: 03 02 xx

Explanation: This error results when the time required to seek to a new location exceeds the specified time required to complete the operation.

This normally indicates a hardware problem with the optical cartridge.

User response: Replace the optical cartridge. If error still persists, contact your IBM Service representative.

80E43316 Sense Data: 03 09 03

Explanation: Spindle Servo error. The optical drive was unable to spin the optical disk.

This normally indicates a hardware problem with the optical cartridge.

User response: Replace the optical cartridge. If the problem continues, contact your IBM Service representative.

80E4331B Sense Data: 03 1C xx

Explanation: Primary Defect List not found.

This normally indicates a hardware problem with the optical cartridge.

User response: Format the optical disk using the long format option. If the problem continues, replace the optical cartridge. If the problem still persists, contact your IBM Service representative.

80E4331D Sense Data: 03 31 xx

Explanation: A format operation was interrupted (reset, optical cartridge removed, or hardware failure) prior to completion of a format command. The format command must be reissued for this optical disk.

User response: Format the optical disk before further use.

80E43401 Sense Data: 04 xx xx

Explanation: Unknown sense data from the optical drive.

This normally indicates a hardware problem with the optical drive.

User response: Retry the command or try a different command in order to get a known return code that may point to the problem. If the device is a supported optical drive, you may need a more recent software driver. If you already have the most recent software, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43404 Sense Data: 04 09 00

Explanation: Track following error. This error occurs when the positioning of the actuator cannot be maintained over a given track. This error can also occur if the focus is dropped due to a defect on the optical disk or any other optical drive fault.

This normally indicates a hardware problem with the optical drive.

User response: Contact your IBM Service representative.

80E4340C Sense Data: 04 44 xx

Explanation: The control microprocessor detected incorrect status or received an illegal request from the device electronics.

This normally indicates a hardware problem with the optical drive.

User response: Contact your IBM Service representative.

80E4340D Sense Data: 04 51 xx

Explanation: Laser calibration failure. The optical drive cannot write data on this optical disk.

This normally indicates that the optical drive or optical cartridge needs cleaning.

User response: Try a new optical cartridge in the optical drive. If the error continues, clean the drive. If the problem is now fixed, clean the original optical cartridge. If the problem persists, after cleaning the cartridge and the drive, contact your IBM Service representative.

80E4340E Sense Data: 04 53 00

Explanation: Optical cartridge load or unload failure

This normally indicates a hardware problem with the optical drive or optical cartridge.

User response: Eject and re-insert the optical cartridge in the optical drive and try command again. If the problem continues, replace the optical cartridge. If the problem still persists, contact your IBM Service representative.

80E43414 Sense Data: 04 02 xx

Explanation: This error occurs when the time required to seek to a new location exceeds the specified time required to complete the operation.

This normally indicates a hardware problem with the optical drive or optical cartridge.

User response: Replace the optical cartridge. If error still continues, contact your IBM Service representative.

80E43416 Sense Data: 04 09 03

Explanation: Spindle Servo error. The optical drive was unable to spin the optical disk.

This normally indicates a hardware problem with the optical cartridge.

User response: Replace the optical cartridge. If the problem continues, contact your IBM Service representative.

80E4341C Sense Data: 04 1B xx

Explanation: Synchronous transfer error.

This normally indicates a software problem.

User response: Run Diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E4341F Sense Data: 04 83 00

Explanation: Optical drive is too hot

User response: Eject the disk, turn Off the power, and wait until the optical drive cools down. Eliminate the causes of the temperature elevation and retry the operation.

80E43501 Sense Data: 05 xx xx

Explanation: Unknown sense data from the optical drive.

This normally indicates a software problem, but the certainty is very low since the sense data is unknown.

User response: Retry the command or try a different command in order to get a known return code that may point to the problem. If the device is a supported optical drive, you may need a more recent software driver. If you already have the most recent software, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E4350F Sense Data: 05 1A xx

Explanation: Parameter list length error. This error occurs when the number of parameters supplied are more or less than the command allows.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43510 Sense Data: 05 26 xx

Explanation: The optical drive detected a value other than expected in a field of the parameter list.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43511 Sense Data: 05 24 xx

Explanation: A value other than expected was detected in a CDB field. This error also occurs if the “Unload Cartridge” command is received when the cartridge is locked.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43512 Sense Data: 05 25 xx

Explanation: The Logical Unit Number field in the CDB is not supported. The optical drive supports Logical Unit Number 0 only.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics does not give an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43517 Sense Data: 05 20 xx

Explanation: The command operation code received is not supported.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43518 Sense Data: 05 21 xx

Explanation: The Logical Block Address is outside the supported range.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43519 Sense Data: 05 39 xx

Explanation: The optical drive does not support saving parameter option.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43601 Sense Data: 06 xx xx

Explanation: Unknown sense data from the optical drive.

User response: Retry the command or try a different command in order to obtain a known return code that may point to the problem. If the device is a supported optical drive, you may need a more recent software driver. If you already have the most recent software, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43610 Sense Data: 06 26 xx

Explanation: The optical drive detected a value other than expected in a field of the parameter list.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E4361A Sense Data: 06 5A xx

Explanation: The operator pressed the eject button while the optical drive was locked for format.

This normally indicates a user error.

User response: Wait until the format is complete before using the optical disk. If there is no format in progress, then check the optical drive for the correct placement of the Prevent/Allow Medium Removal jumper. If this is not the cause of the problem, then use manual emergency eject to retrieve optical cartridge, and contact your IBM Service representative.

80E43B01 Sense Data: 0B xx xx

Explanation: Unknown sense data from the optical drive.

This normally indicates a software problem but the certainty is very low since the sense data is unknown.

User response: Retry the command or try a different command in order to get a known return code that may point to the problem. If the device is a supported optical drive, you may need a more recent software driver. If you already have the most recent software, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43B03 Sense Data: 0B 49 xx

Explanation: A message was sent that is either not supported or is not in a logical sequence.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43B05 Sense Data: 0B 48 xx

Explanation: The optical device driver detected an error, sent a message to retry, detected the error again, and sent the retry message a second time.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43B08 Sense Data: 0B 47 xx

Explanation: The optical drive detected incorrect parity on the SCSI data bus.

This normally indicates a hardware problem with SCSI controller, SCSI connectors, cables or other devices on SCSI bus.

User response: If all other SCSI devices are working properly, contact your IBM Service Representative.

80E43B0B Sense Data: 0B 45 xx

Explanation: There was no response to a reselection within 250 ms after the optical drive gains bus arbitration. The reselection is attempted a second time before setting this return code.

This normally indicates the inability of the store controller to respond to the optical drive within the drive within the drive reselect timeout period. In this case, this would not be a optical drive failure.

User response: Try again when the store controller is not as busy. If the problem continues, run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43B13 Sense Data: 0B 4E xx

Explanation: A second command was sent to the optical drive while a previous command was being executed.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E43B15 Sense Data: 0B 43 xx

Explanation: An inappropriate or unexpected “Message Reject” was received or the message was rejected twice by the store controller.

This normally indicates a software problem.

User response: Run diagnostics on the optical drive to determine if there is a hardware problem. If diagnostics provide an error, contact your IBM Service representative. If diagnostics do not provide an error, initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E44006 Sense Data: xx 53 02

Explanation: The eject command failed because the optical drive is currently locked for formatting.

This normally indicates a user error.

User response: Wait until the format is complete before using the optical disk. If there a format is not in progress, check the optical drive for correct placement of the Prevent/Allow Medium Removal jumper. If this is not the cause of the problem, then use manual emergency eject to retrieve the optical cartridge, and contact your IBM Service representative.

80E44009 Sense Data: N/A

Explanation: A call was made to a function that was not implemented.

This normally indicates a software problem.

User response: Initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80E44100 Sense Data: N/A

Explanation: An attempt to allocate memory equal to 4 times the sector size failed.

This normally indicates a memory problem.

User response: Check for a hardware problem with your store controller.

80E44304 Sense Data: xx 04 04

Explanation: Logical Unit is not ready. Formatting is in progress.

This normally indicates a user error.

User response: Wait until the format is complete before using the optical disk. If a format is not in progress, then check the optical drive for the correct placement of Prevent/Allow Medium Removal jumper. If this is not the cause of the problem, then use manual emergency eject to retrieve the optical cartridge, and contact your IBM Service representative.

80E4430E Sense Data: xx xx xx

Explanation: Error while reading the FAT.

The original return code has been replaced by File Services so the cause is unknown.

User response: Retry the command or try a different command in to obtain a known return code that may point to the problem.

80E74003 Sense Data: N/A

Explanation: A user attempted to activate enhanced password support and replaced the password file (ADX_SDT1:ADXEPW0F.DAT) without distributing it.

User response: Make the file distributed on the master (compound, distribute at update) and re-IPL the alternate.

80F60901 Sense Data: N/A

Explanation: A call was made to a function that was not implemented.

This normally indicates a software problem.

User response: Initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80F60902 Sense Data: N/A

Explanation: A null pointer was passed as the parameter buffer from the optical driver to the SCSI driver.

This normally indicates a software problem.

User response: Initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80F60903 Sense Data: N/A

Explanation: The optical drive has multiple Logical Unit Numbers. The optical software only supports optical drives with one Logical Unit Number.

This normally indicates a user error because unsupported hardware is being used.

User response: If the optical drive is a supported model, contact the IBM Support Center.

80F60904 Sense Data: N/A

Explanation: The ABIOS is using logical data pointers. Logical data pointers are not supported.

This normally indicates an ABIOS problem.

User response: Check to see if you have the latest ABIOS patches and make sure your system unit is supported. Contact the IBM Support Center.

80F60905 Sense Data: N/A

Explanation: ABIOS has used all available logical IDs and cannot allocate a logical ID for the optical drive.

This normally indicates an ABIOS problem.

User response: Check to see if you have the latest ABIOS patches and make sure your system unit is supported. Contact the IBM Support Center.

80F60906 Sense Data: N/A

Explanation: An attempt was made to install more optical drives than are supported.

This normally indicates a user problem.

User response: Run the reference diskette. Make sure you only have one optical drive configured. If more than one is configured, remove all but one. This may only require changing the field “KEEP” to “REMOVE”.

80F60907 Sense Data: N/A

Explanation: The unit number is not valid.

This normally indicates a software problem.

User response: Initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80F60909 Sense Data: N/A

Explanation: An attempt was made to open or use the optical drive and it is not installed.

User response: Check the System Event Log for a W673, W674, or W675 message. Base your response on these messages.

80F6090A Sense Data: N/A

Explanation: The buffer passed as the data buffer from the optical driver to the SCSI driver is too small to hold the data.

This normally indicates a software problem.

User response: Initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80F6090B Sense Data: N/A

Explanation: A null pointer was passed as the data buffer from the optical driver to the SCSI driver.

This normally indicates a software problem.

User response: Initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80F6090C Sense Data: N/A

Explanation: The store controller communicates with the optical drive through ABIOS and ABIOS is not installed on this store controller.

This normally indicates a user error because unsupported hardware is being used.

User response: Use a store controller with ABIOS. If this store controller does have ABIOS, contact your IBM Service representative.

80F64009 Sense Data: N/A

Explanation: A call was made to a function that was not implemented.

This normally indicates a software problem.

User response: Initiate a store controller dump immediately after recreating the problem and contact the IBM Support Center.

80F64100 Sense Data: N/A

Explanation: An attempt to allocate memory failed.

This normally indicates a user problem.

User response: Try the command again later when fewer tasks are running.

80F64305 Sense Data: N/A

Explanation: The buffer passed as the data buffer from the optical driver to the SCSI driver is not a valid pointer or is not valid for the full range of the size of the buffer.

This normally indicates a software problem.

User response: Initiate a store controller dump immediately after recreating the problem, and contact the IBM Support Center.

80FA910C Sense Data: N/A

Explanation: ABIOS returned a 910C return code indicating an error, but sense data is not available. The optical cannot respond to the command.

This normally indicates a hardware or setup problem with the SCSI controller, SCSI connectors, cables, SCSI ID, reference diskette configuration, power connector, SCSI adapter problem, the optical drive, or a timeout waiting for the completion of a command.

User response: Check the cables for proper seating. Check that the drive is getting power. Check that the optical drive SCSI ID is not the same as another SCSI device. Run the reference diskette and verify that there are no memory conflicts. If the problem persists, contact your IBM Service representative.

80FAxxxx Sense Data: N/A

Explanation: ABIOS returned an xxxx return code indicating an error but no sense data is available.

This normally indicates a hardware or setup problem with the SCSI controller, SCSI connectors, cables, SCSI ID, reference diskette configuration, power connector, SCSI adapter problem, the optical drive, or a timeout waiting for the completion of a command.

User response: Check the cables for proper seating. Check that the drive is getting power. Check that the optical drive SCSI ID is not the same as another SCSI device. Run the reference diskette and verify that there are no memory conflicts. If the problem persists, contact your IBM Service representative.

All Other Return Codes

This chart shows the layout of the return code (*nnhhxxxx*).

High Order Word		Low Order Word
nnhh		xxxx
(See note)	Component	Error Code

Note: *nn* can be any value from X'80' to X'FF'

Return Code High-Order Word

High-Order Word = The Unit that Generated the Error

High Order Word	The Unit Generating the Error
*nn*00	Kernel or Supervisor
*nn*01	Timer Driver
*nn*02	DOS Emulation
*nn*0D	Terminal Diagnostics
*nn*10	Pipe Resource Manager
*nn*11	Pipe Driver
*nn*1A	DIVA Network Gateway for SNA
*nn*1C	DIVA Network Gateway for SNA
*nn*20	Disk Resource Manager
*nn*21 - *nn*2F	Disk Drivers
*nn*30	Console Resource Manager
*nn*31 - *nn*3F	Console Drivers
*nn*40	Command/Load Resource Manager
*nn*41	Terminal Transmit Request
*nn*42	Secondary Loop Interface
*nn*43	Secondary Loop Error Handler
*nn*44	Terminal Local File Services
*nn*50	NFS or VFS Client
*nn*51 - *nn*59	Non-IBM Extension Drivers
*nn*5A	CDROM Driver
*nn*5B	DVD Driver
*nn*5C	Embedded Functions Interface Driver
*nn*5D - *nn*5F	Non-IBM Extension Drivers
*nn*60	Network Resource Manager
*nn*61	Protocol Driver
*nn*62	Transport Driver
*nn*63	Network Server Driver
*nn*64	NET: Device Driver
*nn*65	Name Server Driver
*nn*66	Network Requester Server Driver
*nn*67	DLC Device Driver
*nn*68	MAC Device Driver
*nn*69	Novell Client Driver
*nn*6A	NETIF Ethernet Driver
*nn*6B	Novell IPX Driver

High Order Word	The Unit Generating the Error
*nn*70	Miscellaneous Resource Manager
*nn*71 - *nn*7F	Totals Retention
*nn*81	Port Driver
*nn*82	Device Channel
*nn*83	Totals Retention
*nn*84	I/O Processor
*nn*85	Terminal Keyboard
*nn*86	Cash Drawer
*nn*89	Print Spooler
*nn*8A	Touch Screen
*nn*8B	Uninterruptable Power Supply Serial Driver
*nn*90	Terminal Printer
*nn*91	Fiscal Printer
*nn*98	Serial Devices
*nn*99	OEM Serial Devices
*nn*9A	OEM Serial Devices
*nn*9B	OEM Serial Devices
*nn*A0	First Alphanumeric or Operator Display
*nn*A1	First Video Display
*nn*A2	Coin Dispenser
*nn*A3	Scale
*nn*A5	MSR
*nn*A7	Terminal Scanner Driver
*nn*A8	Terminal Magnetic Wand Driver
*nn*A9	Shopper Display
*nn*AA	Second Alphanumeric or Operator Display
*nn*AB	Second Video Display
*nn*B0	Communications – ASYNC
*nn*B1 - *nn*BF	Communications – Drivers
*nn*C0	Jattach Driver
*nn*C1	Terminal Services
*nn*C2	Operator Console Facility
*nn*C3	Pipe Routing Services
*nn*C4	Console Driver Extension
*nn*C7	Remote Operator
*nn*C8	IPL Command Processor
*nn*CC	LAN Terminal Transporter
*nn*CD	Loadable Terminal Initialization
*nn*D0	Apply Software Maintenance
*nn*D1	Controller Token-Ring TCC
*nn*D4 - *nn*D9	Telxon device driver
*nn*DD	Data Distribution Application
*nn*DE	LAN Requester
*nn*DF	Flex-net LAN Timeout
*nn*E0	Installation
*nn*E1	Controller Printer Despooler
*nn*E4	Optical Disk Driver
*nn*E5	Tape Streamer Driver
*nn*E6	EIDE Device Driver
*nn*E7	Enhanced Password Driver/Manager
*nn*F0	Application Loader
*nn*F1	Terminal File Services
*nn*F2	Shared I/O Access Method
*nn*F3	Keyed File Services

High Order Word	The Unit Generating the Error
*nn*F4	CBASIC Runtime Library
*nn*F5	SCSI Installation Driver
*nn*F6	SCSI Generic Driver
*nn*F7	Hard Disk Driver
*nn*F8	Token-Ring Error Log
*nn*F9	Tape Streamer Driver
*nn*FA	ABIOS
*nn*FB	Driver for Preloaded In-Memory Files
*nn*FD	SSRT – Store Controller
*nn*FE	SSRT – Runtime Library
*nn*FF	SSRT – Terminal

See the following note for more information.

Note: **Runtime Library** ***nn*F4** The low-order word (*xxxx*) of these return codes (*nn*F4*xxxx*) is the hexadecimal representation of an ASCII Error Code.

Example:

RC=80F44355

4355 is the hexadecimal representation of ASCII Error Code CU.

- The procedure for translating the hexadecimal representation into the ASCII Error Code is in the *IBM 4680 BASIC: Language Reference* under “ASCII Error Codes”.
- The definition of the ASCII Error Code is in the *IBM 4680 BASIC: Language Reference* under “Runtime Error Codes”.

Return Code Low-Order Word

Low-Order Word = The Error Code

Driver Error Codes (0000 through 3FFF)

nnhh = High-Order Word
xx = Any character in the Driver Error Code range

Error Code	Description
*nnhhxx*00	A write protect violation occurred.
*nnhhxx*01	An illegal unit number was detected.
*nnhhxx*02	The drive is not ready.
*nnhhxx*03	A command that was not valid was issued.
*nnhhxx*04	A CRC error occurred on I/O.
*nnhhxx*05	A bad parameter block was detected.
*nnhhxx*06	A seek operation failed.
*nnhhxx*07	Unknown media is present.
*nnhhxx*08	The required sector was not found.
*nnhhxx*09	The attachment did not respond.
*nnhhxx*0A	A write fault occurred.
*nnhhxx*0B	A read fault occurred.
*nnhhxx*0C	A general failure occurred.
*nnhhxx*0D	A sector is missing an address mark.
*nnhhxx*0E	New media is present.
*nnhhxx*0F	The door has been opened.

Error Codes Common to all Resource Managers (4000 through 407F)

nnhh = High-Order Word

Error Code	Description
*nnhh*4001	The file cannot be accessed (ownership differences).
*nnhh*4002	The event was cancelled.
*nnhh*4003	End-of-file was detected.
*nnhh*4004	For CREATE – The file already exists. For INSTALL – The device already exists.
*nnhh*4005	General – The device does not match. For RENAME – On different devices. For LU 6.2 communications requests – The link needed for the request has not been enabled.
*nnhh*4006	The device is LOCKED.
*nnhh*4007	The file number is bad.
*nnhh*4008	The function number is bad.
*nnhh*4009	The function is not implemented.
*nnhh*400A	The information type is illegal for this file.
*nnhh*400B	An error occurred on initialization of a driver.
*nnhh*400C	General – The file cannot be accessed because of current usage. For DELETE – There was an attempt to delete an open file or a directory with files. For INSTALL – There was an attempt to replace a driver that was in use.
*nnhh*400D	There is not enough storage available.
*nnhh*400E	General – A function mismatch occurred (an attempt to perform a function on a file that does not support the function). For INSTALL – A subdriver type mismatch occurred.
*nnhh*400F	An illegal file name was specified.
*nnhh*4010	General – The file was not found. For CREATE – The device or directory does not exist.
*nnhh*4011	General – An illegal parameter was specified. For EXCEPTION – An illegal number was specified.
*nnhh*4012	The record size does not match the request.
*nnhh*4013	For INSTALL – A subdriver is required.
*nnhh*4014	A bad flag number was detected.
*nnhh*4015	There was an attempt to access a non-existent storage area.
*nnhh*4016	A storage bound error occurred.
*nnhh*4017	An illegal instruction was detected.
*nnhh*4018	An attempt to divide by zero was detected.
*nnhh*4019	A bound exception occurred.
*nnhh*401A	An overflow exception occurred.
*nnhh*401B	A privilege exception occurred. You are attempting to access an area in memory that you are not authorized to access. The Operating System controls this area.
*nnhh*401C	Trace
*nnhh*401D	Breakpoint was detected.
*nnhh*401E	A floating point exception occurred.
*nnhh*401F	A stack fault occurred.
*nnhh*4020	A general exception occurred.
*nnhh*4021	Emulated instruction group 1.
*nnhh*4022	A 386 memory page fault occurred.
*nnhh*4023	Out of KOSPOOL; cannot start process HALBLD.
*nnhh*407F	There are not enough operating system resources available to run the program. If a program ends with this return code, adding more memory will not allow it to run. This return code indicates that some programs must end before others can start.

Supervisor Error Codes (4080 through 40FF)

nnhh = High-Order Word

Error Code	Description
*nnhh*4080	The function does not support asynchronous I/O.
*nnhh*4082	A bad load format was detected.
*nnhh*4083	General – There was recursion (99 times) on prefix substitution. For INSTALL – A subdriver type mismatch occurred.

Error Code	Description
*nnhh*4084	The file number table is full.
*nnhh*4085	For DEFINE – An illegal name was specified.
*nnhh*4086	There are too many driver units.
*nnhh*4087	The driver does not need a subdriver.
*nnhh*4088	The driver returned a bad driver type.
*nnhh*4089	The LOADER could not find a stack specified in the requested application load module.
*nnhh*408A	The file table count specified on SET of the SYSTEM table is not legal.

Storage Error Codes (4100 through 417F)

nnhh = High-Order Word

Error Code	Description
*nnhh*4100	Out of storage pool.
*nnhh*4101	A bad address was specified to free.

Kernel Error Codes (4180 through 41FF)

nnhh = High-Order Word

Error Code	Description
*nnhh*4180	The flag is already set.
*nnhh*4181	Indicates the return code of the process being ended.
*nnhh*4182	The process ID was not found on the command to end.
*nnhh*4183	For COMMAND – No PROCINFO was specified.
*nnhh*4184	For COMMAND – A storage load type that was not valid was detected.
*nnhh*4185	For CONTROL – A storage access that was not valid was attempted.
*nnhh*4186	An event mask that was not valid was detected.
*nnhh*4187	The event has not completed.
*nnhh*4188	The required shared run-time library (SRTL) could not be found.
*nnhh*418A	The program was ended by a *Control-C*.
*nnhh*418C	A SWIRET was attempted from a process that is not a SWI.
*nnhh*418D	The requested event is pending.
*nnhh*418E	There are too many nested shared run-time libraries (SRTLs).
*nnhh*418F	The program header indicates that a SRTL is required, but no SRTL names were specified.
*nnhh*4190	A load error occurred. A storage load type that was not valid was detected. Re-link or post-link the application to correct the load type.
*nnhh*4191	A corrupt fixup record was detected.
*nnhh*4192	A SRTL fixup error was detected.
*nnhh*4193	An end of file was reached before the end of the fixup record was found.
*nnhh*4194	The program could not get addressability to a Logical Device Table due to either an LDT limit or an out of memory condition.
*nnhh*4196	An overlay is trying to use a SRTL that was not specified in the load module.
*nnhh*4197	The version number of the SRTL found does not match the version number of the requested SRTL.
*nnhh*4198	The SRTLs call each other.
*nnhh*4199	A postlinked SRTL is required but the SRTL being loaded is non-POSTLINKED or vice versa.
*nnhh*419A	DLL init routine returned error.
*nnhh*419B	DLL init routine returned error.
*nnhh*419C	Imported symbol not found.
*nnhh*419D	Cannot import by ordinal.
*nnhh*419E	TLS entries in PE header.
*nnhh*41FF	The process is aborting.

Pipe and Miscellaneous Resource Managers Error Codes (4200 through 427F)

4200 through 427F are defined as Pipe and Miscellaneous Resource Managers Error Codes.

Console System Error Codes (4280 through 42FF)

4280 through 42FF are defined as Console System Error Codes.

File System (Disk) Error Codes (4300 through 437F)

nnhh = High-Order Word

Error Code	Description
*nnhh*4300	No block or directory entries are available.
*nnhh*4301	A media change occurred.
*nnhh*4302	A media change was detected after a write.
*nnhh*4303	A bad path was detected.
*nnhh*4304	The devices are locked exclusively.
*nnhh*4305	The address is out of the range.
*nnhh*4306	A rename or delete was attempted on a read only (R/O) file.
*nnhh*4307	A delete was attempted on a directory that is not empty.
*nnhh*4308	A bad offset was detected in a READ, WRITE, SEEK, or CREATE.
*nnhh*4309	The file allocation table is corrupted.
*nnhh*430A	A pending lock cannot be unlocked.
*nnhh*430B	System media are not operating.
*nnhh*430C	The file was closed before the asynchronous lock could be completed.
*nnhh*430D	A lock access conflict was detected.
*nnhh*430E	An error was detected while reading the file allocation table (FAT).
*nnhh*430F	There are no drive slots remaining.

Error Codes Common to all Drivers (4380 through 439F)

nnhh = High-Order Word

Error Code	Description
*nnhh*4380	An XRB format that was not valid was detected.
*nnhh*4381	A bad request was detected.
*nnhh*4382	No driver or storage is available.
*nnhh*4383	The request was canceled.
*nnhh*4384	There is no such node or buffer address.

Network Resource Manager Error Codes (43A0 through 43BF)

nnhh = High-Order Word

Error Code	Description
*nnhh*43A0	There is no such node.
*nnhh*43A1	The node cannot be connected. Possible hardware error or the node could not successfully complete reconciliation. (See message W906 or W907.)
*nnhh*43A2	Unable to log on to the remote node.
*nnhh*43A3	The remote node does not support any dialect supported by the local node.
*nnhh*43A4	You are already logged on to the node.
*nnhh*43A5	You are not logged on to the node.
*nnhh*43A6	The local node name is not set.
*nnhh*43A7	The remote log on was refused.
*nnhh*43A8	You are not permitted to log on to the specified node.
*nnhh*43A9	The local node name is already set
*nnhh*43AA	The log on limit was exceeded for this process.
*nnhh*43AB	There are no operations-in-progress available to service this request.
*nnhh*43AC	The node could not successfully complete reconciliation for a distribute on close file.
*nnhh*43B0	The server is broken.
*nnhh*43B1	The server is not yet initialized.

Server Driver Error Codes (43C0 through 43DF)

nnhh = High-Order Word

Error Code	Description
*nnhh*43C0	An internal error occurred in the indicated remote module.

Net: Device Driver Error Codes (43E0 through 43FF)

nnhh = High-Order Word

Error Code	Description
*nnhh*43E0	No remote node or socket was specified.
*nnhh*43E1	There was an attempt to use a reserved socket.
*nnhh*43E2	A connection handle that was not valid was detected.
*nnhh*43E3	A connection is in the wrong state.
*nnhh*43E4	The connection table is full.

Protocol Driver Error Codes (4400 through 441F)

nnhh = High-Order Word

Error Code	Description
*nnhh*4400	A general error was received from a Personal Computer DOS node.

Name Server Driver Error Codes (4420 through 443F)

nnhh = High-Order Word

Error Code	Description
*nnhh*4420	The driver's asynchronous portion must be called.
*nnhh*4421	No such name was found.
*nnhh*4422	The specified key is unknown.
*nnhh*4423	The specified name already exists.
*nnhh*4424	A name that was not valid was specified.
*nnhh*4425	The function requires a transporter for operation and the transport driver is not installed.

Transport Driver Error Codes (4440 through 444F)

nnhh = High-Order Word

Error Code	Description
*nnhh*4440	The request timed out.
*nnhh*4441	The message has more data.
*nnhh*4442	A connection handle that was not valid was detected.
*nnhh*4443	The connection was closed on a pending request.
*nnhh*4444	The request is already completed.
*nnhh*4446	A network failure occurred.
*nnhh*4447	The specified socket address does not exist.
*nnhh*4448	Another node is using that name.

DLC Driver Error Codes (4450 through 445F)

nnhh = High-Order Word

Error Code	Description
*nnhh*4450	A network reset/recover is being attempted.
*nnhh*4451	Duplicate command; one is already outstanding.
*nnhh*4452	An SAP or STATION_ID value that was not valid was specified.

Error Code	Description
*nnhh*4453	Multicast addressing: filtering allows more addresses than specified.

IBM PC Machine Emulation Error Codes (4500 through 45FF)

Error Code	Description
*nnhh*4500	There was an attempt to do direct I/O through a driver that does not support it.
*nnhh*4501	There was an attempt to do ROS (int 10) I/O through a driver that does not support it. There was a DOS application error.
*nnhh*4502	There was an attempt to do ROS (int 16) keyboard input through a driver that does not support PC DOS applications. There was a DOS application error.

POSIX Library Signal Error Codes (4600 through 46FF)

Error Code	Description
*nnhh*46*xx*	POSIX has abended. *xx* is the signal number that caused the process to terminate (00 through ff).

Reserved (4700 through FFFF)

4700 through FFFF are reserved.

Chapter 5. Communication and HCP error sense code descriptions

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X'11' Invalid Ending Disk Address 353
X'3F' Undefined/Other 353

This chapter contains information about the communication sense codes and error/sense codes generated by the Host Command Program (HCP).

Communication sense codes

The sense codes are listed in numerical order.

Table 17. Communication Sense Codes

Sense code	Explanation	Action	Generated by
X'0000'	See the HCP *or* User Program sense codes.	Restart the sequence in which the failure occurred *or*Correct the application program.	HCP *or* User Program
X'0801'	The requested resource is not available. The session is already active or C & SM is not active.	Retry when the store controller has more resources.	All
X'0806'	The resource is unknown. PU or LU not active in the store controller.	Inform the network operator that the failure occurred.	All
X'0809'	Mode inconsistency: The requested function cannot be performed in the present state.	Restart the sequence in which the failure occurred *or*Correct the application program.	HCP or RCMS
X'080C'	The procedure is not supported.	Check to ensure that the session was established with the appropriate logical unit *or*Change your virtual telecommunications access method (VTAM®) program to establish a consistent convention *or*Revise or reformat the data or request-unit type, and retransmit.	All
X'080E'	Network addressable unit (NAU) not authorized.	Inform the network operator that the failure occurred, and correct session parameters in VTAM and network control program (NCP) generation.	All

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Table 17. Communication Sense Codes (continued)

Sense code	Explanation	Action	Generated by
X'0812'	The resources (usually storage) are temporarily unavailable.	Retry when the store controller has more resources.	All
X'0813'	Bracket contention: A bid or begin bracket was received while in a bracket, permission to begin bracket has been denied.	Check to ensure that the session was established with the appropriate logical unit *or*Change your VTAM program to establish a consistent convention *or*Wait for the operation to complete.	User Program
X'0815'	The function is already active.	Check to ensure that the session was established with the appropriate logical unit *or*Change your VTAM program to establish a consistent convention.	All
X'081C'	Function not executable: the requested function is supported but cannot be executed at this time.	Wait for the operation to complete.	User Program
X'081D'	The SSCP ID is not valid.	Correct the SSCP ID at either the host or the store controller and retry.	All
X'0821'	The session parameters are incorrect.	Correct session parameters in VTAM and NCP generation.	All
X'0828'	Reply not allowed: A request requires a normal-flow reply, but the outbound data flow for this half-session is quiescent or shut down, and there is no delayed reply capability.	Cancel the session and retry.	RCMS
X'0878'	Insufficient storage: The storage resource required for a data format is not available.	Retry when the store controller has more resources.	RCMS
X'1002'	The request or response unit (RU) length is incorrect.	Inform the network operator that the failure occurred.	All
X'1003'	The requested function is not supported.	Restart the sequence in which the failure occurred *or*Correct the application program *or*Correct session parameters in VTAM and NCP generation.	HCP or RCMS
X'1007'	Category not supported.	Check to ensure that the session was established with the appropriate logical unit *or*Change your VTAM program to establish a consistent convention.	All
X'2001'	Sequence number error: the sequence number of the last RU received was not the next sequential number. An RU has been lost in the network.	Send a clear and a system task set table (STSN), and a start-data-traffic (SDT) to reestablish normal flow.	All
X'2002'	Chaining error: The chaining indicators were not in the first-in-chain, middle-in-chain, last-in-chain sequence.	Send a cancel and retransmit chain.	All
X'2003'	Bracket error: The rules for bracket convention were not followed.	Send a clear and an STSN, and an SDT to reestablish normal flow *or*Terminate the session.	User Program

Table 17. Communication Sense Codes (continued)

Sense code	Explanation	Action	Generated by
X'200A'	Immediate request mode error: the immediate request mode protocol has been violated by the request.	Correct the host program.	RCMS
X'200D'	A response is required before sending a request. HCP must send a definite-response RU and receive no response from the host program.	Restart the sequence in which the failure occurred *or*Correct the application program.	HCP
X'200F'	Response protocol error: a violation has occurred in the response protocol. For example, a +RSP to an RQE chain was generated.	Correct the host program.	RCMS
X'2011'	Pacing error: a request was received before the pacing response was sent to the host.	Inform the network operator that the failure occurred.	All
X'4001'	A session control (SC) that is not valid or network control (NC) request header (RH).	Inform the network operator that the failure occurred.	All
X'4003'	Begin-bracket (BB) not allowed.	Inform the network operator that the failure occurred.	All
X'4004'	End-bracket (EB) not allowed	Inform the network operator that the failure occurred.	All
X'4005'	An incomplete transmission header – (TH)-RH was received.	Inform the network operator that the failure occurred.	All
X'4008'	Pacing not supported.	Inform the network operator that the failure occurred.	All
X'400C'	Brackets Not Supported: a begin-bracket or end-bracket indicator was received, but bracket convention is not supported for this logical unit.	Terminate the session and check to ensure that the session was established with the appropriate logical unit *or*Change your VTAM program to establish a consistent convention.	User Program
X'400F'	Incorrect use of format indicator.	Restart the sequence in which the failure occurred *or*Correct the application program.	HCP
X'4011'	Incorrect specification of RU category.	Inform the network operator that the failure occurred.	All
X'8004'	A destination address that is not valid.	Correct session parameters in VTAM and NCP generation.	All
X'8005'	The requested session is not active.	Correct session parameters in VTAM and NCP generation and inform the network operator that the failure occurred.	All
X'8006'	A format identification (FID) that is not valid.	Inform the network operator that the failure occurred.	All
X'8007'	Segmenting is not supported.	Inform the network operator that the failure occurred.	All
X'8008'	The physical unit (PU) is not active.	Inform the network operator that the failure occurred.	All
X'8009'	The requested LU is not active.	Inform the network operator that the failure occurred.	All

Table 17. Communication Sense Codes (continued)

Sense code	Explanation	Action	Generated by
X'800A'	The path information unit (PIU) was too large.	Inform the network operator that the failure occurred.	All
X'800B'	The TH was too short.	Inform the network operator that the failure occurred.	All

HCP error/sense codes

In general, the most valuable tool available to the user is the communications line trace. With it, many problems associated with improperly coded command sequences can be corrected. The line trace also gives a better understanding of where the HCP command sequences are actually failing. For any sense codes that indicate IBM assistance is required, you can provide valuable assistance by simply obtaining communications line traces of HCP command sequences in question and have them available. As dictated by the specific sense codes, other useful items that you can provide are directory dumps, file dumps, and error log dumps.

The HCP error or sense code is made up of the *error code* generated by HCP and the *user code* generated by the user program.

- The *error code* is the first byte of the HCP error or sense code field. It appears in byte 2 of the status response from HCP to the host.
- The *user code* is the second byte of the HCP error or sense code field. It appears in byte 7 of the status response from HCP to the host.

The HCP error or sense codes are listed here in numerical order.

X'01' Data Validity Error

An error has been detected in the data that was received. (Example: characters that are not valid.) Examine the parameters in the command for accuracy, and correct any errors.

X'15' Indicates a record length error for the keyed file. Correct the error and retransmit.

X'17' Indicates a file organization error. Correct the file organization bit values and retransmit.

X'98' Indicates a key format error. (Example: key format = 0.) Correct the key format indicator and retry.

X'02' Resources Unavailable

The data that is to be sent or that has been sent cannot be processed because of a lack of resources. (Example: The file is in use and it is temporarily unavailable.)

X'9B' Indicates an open I/O violation. The receiving file is being used. Try again later when the file is available.

X'9D' Indicates a user open count error. The file is being used. Try again later when the file is available.

X'F9' Indicates the requested space is unavailable. Delete a file and try again.

X'06' Command Rejected

A command that is not valid has been received.

X'06' Indicates a command that was not valid was received and rejected by HCP. Correct the command and command options, then retry.

X'07' I/O Error

A permanent direct access device error has occurred.

X'C7' Indicates there is a permanent I/O error. Call for service on the store controller that contains the file and report a file problem.

*X'x'***4** Indicates a directory error on volume *x*. When the error is corrected, retransmit the operational environment and the required files for that volume.

*X'x'***7** Indicates volume offline. If the volume specification in the subsystem generation is correct, notify your service representative.

X'08' Data Set Full

The specified keyed data set has no available space.

X'C0' Indicates the data set is full. Rebuild the keyed file specifying larger size.

X'09' Data Set Not Found

The file defined in the parameter list does not exist.

X'C2' Indicates the data set is not found. Check the file name, correct it, and retry.

X'0C' Duplicate Data Set/Member Name

The file name specified already appears in the directory.

X'FA' Indicates duplicate file names. Correct the file name and retry.

X'0F' Requested Data Unavailable

The requested data is not available.

X'00' The requested dump data is not available. The controller file size is zero.

X'10' Invalid Starting Disk Address

The specified starting address is beyond the file limits.

X'10' Indicates the start sector is beyond the end of file (EOF). Correct the relative sector and retry.

X'11' Invalid Ending Disk Address

The specified ending address is beyond the file limits.

X'11' Indicates the ending address is beyond the EOF. Correct the ending address and retry.

X'3F' Undefined/Other

This is a generic return code for disk operations that have produced an untranslatable (unexpected) error status. Possible causes are disk hardware failures, type of operation attempted not supported, and incorrectly coded command parameters.

See the user code for the probable error. The user codes are:

X'21' Indicates the file could not be translated to PSS format. Ensure that the application translation program PPPHSHTP exists and that the file contains valid data.

X'22' Indicates a host interface error that was unrecoverable. Reestablish the session and retry the last command.

X'23' Indicates an unrecoverable system error. Report the problem to your IBM Support Representative.

X'24' Indicates a record length of zero was specified for a CREATE of a keyed file. Correct the record length parameter to specify the actual, or maximum record length.

X'25' Indicates a delimiter that was not valid was received. A print file being sent to the host system cannot be converted because no record delimiter was found within 256 characters of data.

X'85' Indicates too many sectors have been requested on Dump command. Correct the number, or specify Dump to EOF.

X'98' Indicates a key format error. Zero key specified in add or replace key operation. Correct the key and retry.

X'9D' Indicates an open user count violation. The file is in use, try later.

X'A7' Indicates that delete or replace is not allowed on this file. The file resides in a protected subdirectory. Target the command to the maintenance subdirectory and use the Apply Software Maintenance utility.

X'C3' Indicates a record was not found. Correct key and retry.

X'C4' Indicates the record already exists. Correct record key and retry.

X'C5' Indicates that file access is not permitted. The file is open and being used at the store controller.

X'C7' Indicates a permanent I/O error. Call for service on the store controller and report a disk hardware problem.

X'F9' Indicates that space is not available. Delete unused files and retry.

X'FD' Indicates a data set name that was not valid. Change the name to valid format and retry.

X'x7' Indicates directory or drive offline. Verify the requested directory and drive by displaying the fully qualified name generated for the specified logical name. The logical unit characteristics are detailed in the “Host Command Processor” section of the *IBM 4690 OS: Communications Programming Reference*. If the directory and drive specifications are correct, call for service on the store controller.

Appendix A. Collecting system information

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This appendix contains information about the operating system *problem analysis aids* that are used to collect system and application information. This information can then be used to analyze system problems.

Problem data collection procedures

Note: Other sections of this manual might direct you to these procedures.

Problem data collection procedure 1

1. Fill in a copy of the “Problem data collection form” on page 390.
   - Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).

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- Use as additional keywords, data that appears in the message (RC=, FN=, CMD=, DUMP, and so on).

2. Report this problem to your store programmer and provide the Problem Data Collection form.

Problem data collection procedure 2

1. Fill in a copy of the “Problem data collection form” on page 390.
   - Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).
   - Use as additional keywords, any data that appears with the message (RC=, FN=, CMD=, DUMP, and so on).
2. Follow the procedure for “Requesting a terminal storage dump” on page 361.
3. Report this problem to your store programmer and provide the preceding information.

Problem data collection procedure 3

1. Fill in a copy of the “Problem data collection form” on page 390.
   - Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).
   - Use as additional keywords, any data that appears with the message (RC=, FN=, CMD=, DUMP, and so on).
   - Also, use additional keyword W507.
2. Follow the procedure for “Requesting a store controller storage dump” on page 359.

   Note: Message W507 is displayed at the store controller.
3. Report this problem to your store programmer and provide the preceding information.

Problem data collection procedure 4

1. Fill in a copy of the “Problem data collection form” on page 390.
   - Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).
   - Use as additional keywords, any data that appears with the message (RC=, FN=, CMD=, DUMP, and so on).
2. Follow the procedure for “Requesting a storage dump report” on page 363.
3. Report this problem to your store programmer and provide the preceding information.

Problem data collection procedure 5

1. Fill in a copy of the “Problem data collection form” on page 390.
   - Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).
   - Use as additional keywords, any data that appears with the message (RC=, FN=, CMD=, DUMP, and so on).
2. Follow the procedure for “Requesting a system log report” on page 365.
   a. Key in **4** for *Controller Events* when the SYSTEM LOG REPORT panel appears.
   b. Key in **3** for *File* as the destination when the CONTROLLER EVENTS REPORT panel appears.
3. Follow the procedure for “Creating a problem analysis diskette or data file” on page 368.
   Specify *System Log Report* when the CREATE PROBLEM ANALYSIS DISKETTE panel appears.
4. Report this problem to your store programmer and provide the preceding information.

Problem data collection procedure 6

1. Fill in a copy of the “Problem data collection form” on page 390.

- Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).
- Use as additional keywords, any data that appears with the message (RC=, FN=, CMD=, DUMP, and so on).

2. Follow the procedure for "Requesting a system log report" on page 365.
   a. Key in **5** for *System Events* when the SYSTEM LOG REPORT panel appears.
   b. Key in **3** *File* as the destination when the SYSTEM EVENTS REPORT panel appears.
3. Follow the procedure for "Creating a problem analysis diskette or data file" on page 368.
   Specify *System Log Report* when the CREATE PROBLEM ANALYSIS DISKETTE panel appears.
4. Report this problem to your store programmer and provide the preceding information.

Problem data collection procedure 7

1. Fill in a copy of the "Problem data collection form" on page 390.
   - Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).
   - Use as additional keywords, any data that appears with the message (RC=, FN=, CMD=, DUMP, and so on).
2. Follow the procedure for "Requesting a system log report" on page 365.
   a. Key in **7** for *All of the above reports* when the SYSTEM LOG REPORT panel appears.
   b. Key in **3** for *File* as the destination when the SYSTEM EVENTS REPORT panel appears.
3. Follow the procedure for "Creating a problem analysis diskette or data file" on page 368.
   Specify *System Log Report* when the CREATE PROBLEM ANALYSIS DISKETTE panel appears.
4. Report this problem to your store programmer and provide the preceding information.

Problem data collection procedure 8

1. Fill in a copy of the "Problem data collection form" on page 390.
   - Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).
   - Use as additional keywords, any data that appears with the message (RC=, FN=, CMD=, DUMP, and so on).
   - Include the line name in the problem description.
2. Follow the procedure for "Starting trace data collection" on page 372.
   Specify *Communications Line* when the START TRACE DATA COLLECTION panel appears.
3. Repeat the steps that caused the problem.
4. Follow the procedure for "Stopping trace data collection" on page 375.
5. Follow the procedure for "Requesting a trace report" on page 376.
   Key in **4** for *Communications Line* for available reports and key in **3** for *Fixed Disk* as the destination when the SYSTEM TRACE REPORT panel appears.
6. Follow the procedure for "Creating a problem analysis diskette or data file" on page 368.
7. Report this problem to the host programmer and provide the preceding information.

Problem data collection procedure 9

1. Fill in a copy of the "Problem data collection form" on page 390.
   - Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).
   - Use as additional keywords, any data that appears with the message (RC=, FN=, CMD=, DUMP, and so on).
2. Request a Module Level Report. See "Verifying the level of software modules" on page 386.
3. Report this problem to your store programmer and provide the preceding information.

Problem data collection procedure 10

1. Fill in a copy of the “Problem data collection form” on page 390.
   - Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).
   - Use as additional keywords, any data that appears with the message (RC=, FN=, CMD=, DUMP, and so on).
   - Include the line name in the problem description.
2. Follow the procedure for “Starting trace data collection” on page 372.
   Specify *Communications Line* when the START TRACE DATA COLLECTION panel appears.
3. Repeat the steps that caused the problem.
4. Follow the procedure for “Stopping trace data collection” on page 375.
5. Follow the procedure for “Requesting a storage dump report” on page 363.
6. Follow the procedure for “Requesting a system log report” on page 365.
   a. Key in **4** for *Controller Events* when the SYSTEM LOG REPORT panel appears.
   b. Key in **3** for *File* as the destination when the CONTROLLER EVENTS REPORT panel appears.
7. Follow the procedure for “Requesting a trace report” on page 376.
   Key in **4** for *Communications Line* for available reports and key in **3** for *Fixed Disk* as the destination when the SYSTEM TRACE REPORT panel appears.
8. Follow the procedure for “Creating a problem analysis diskette or data file” on page 368.
   Specify *System Log Report*, *System Trace Report*, and *Controller Dump* when the CREATE PROBLEM ANALYSIS DISKETTE panel appears.
9. Contact the IBM Support Center for assistance.

Problem data collection procedure 11

1. Fill in a copy of the “Problem data collection form” on page 390.
   - Use MSG as primary keyword, followed by the message number associated with your problem (for example: MSGW001).
   - Use as additional keywords, any data that appears with the message (RC=, FN=, CMD=, DUMP, and so on).
2. Follow the procedure for “Requesting a system log report” on page 365.
   a. Key in **7** for *All of the above reports* when the SYSTEM LOG REPORT panel appears.
   b. Key in **3** for *File* as the destination when the ALL SYSTEM LOG REPORT panel appears.
3. Follow the procedure for “Creating a problem analysis diskette or data file” on page 368.
   Specify *System Log Report* when the CREATE PROBLEM ANALYSIS DISKETTE panel appears.
4. Report this problem to your store programmer and provide the preceding information.

Problem resolution procedure

1. Cancel other applications to free storage. Use the following procedure:
   a. If you have background applications active:
      1) Press **Alt+Sysreq** on your store controller keyboard.
      2) When the SYSTEM KEYS panel appears, key in **b** to *Access Background Application Control*.
      3) When the BACKGROUND APPLICATIONS CONTROL panel appears, press **F8** (Stop) for the applications you want to cancel.
      4) Press **F3** (Quit) twice to return to the SYSTEM MAIN MENU panel.
   b. If you have several active windows:
      1) Press **Alt+Sysreq** on your store controller keyboard.
      2) When the SYSTEM KEYS panel appears, key in **w** to *Access Window Control*.

3) When the WINDOW CONTROL panel appears, press **F8** (Stop) for the windows you want to cancel.
4) Press **F3** (Quit) twice to return to the SYSTEM MAIN MENU panel.

c. If you are using other procedures in this chapter, wait until these procedures are completed.

2. Repeat the steps that caused the problem.
3. If the problem remains, follow "Problem data collection procedure 1" on page 355.

Requesting a store controller storage dump

IBM Personal Computers

Attention: This procedure stops store operations. The storage dump occurs and the store controller IPLs.

Request a dump by doing one of the following procedures:
- Press either dump switch shown in Figure 1 on page 360. They both do the same thing.
- Press **Ctrl+Alt+–** (minus).
- Select option **5**, Dump Controller Storage, from the CONTROLLER FUNCTIONS panel.
- Program the ADXSERVE FUNC=1 (Dump System Storage) in your Controller application.

Message W507 displays.
- Wait for the dump to finish (approximately two minutes).
- Message W507 disappears and the store controller IPLs.
- Message W598 is logged when the dump is complete.
- When the dump is complete, continue at "Requesting a storage dump report" on page 363.

Note: Figure 1 on page 360 shows the Store Loop Adapters installed in the IBM Personal System/2 (PS/2®). The Store Loop Adapters can be installed in any expansion slot in the store controller. This figure shows them installed in slots 1 and 2.

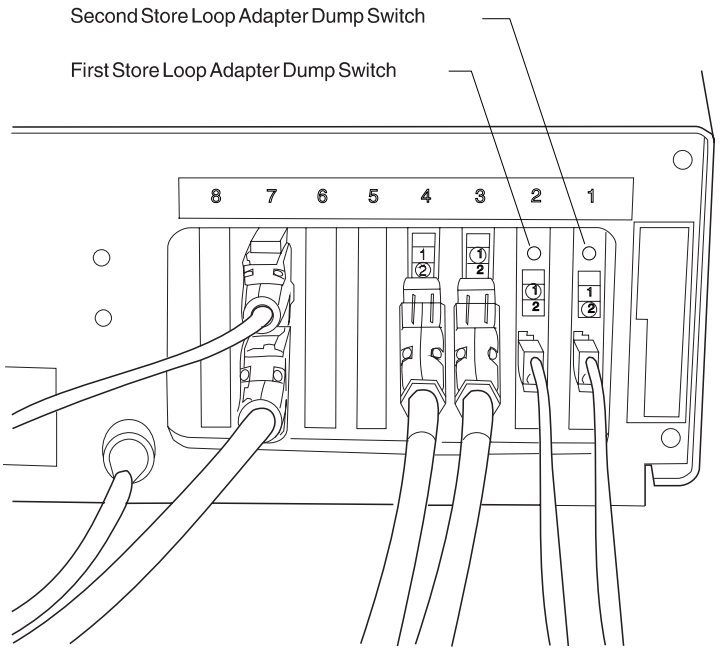


Figure 1. Location of store controller dump switch

IBM 4693, 4694, and SurePOS 700 Series controller/terminal

Attention: This procedure stops store operations. The storage dump occurs and the store controller IPLs.

A dump can be requested using one of the following methods:
- Press **Ctrl+Alt+–** (minus). The minus key must be pressed on the numeric keypad.
- Press the reset (dump) button on your system as shown in Figure 2 on page 361. (The 4694 might not have a reset button.)
- Select option **5**, Dump Controller Storage on the CONTROLLER FUNCTIONS panel.
- Press the reset (dump) button on the loop or NVRAM card, if one is installed.

  Note: On SurePOS terminals, the reset button located on the loop or NVRAM card is not supported. In this case, the dump must be requested by pressing the reset (dump) button that is located on the front of the SurePOS terminal.
- Program the ADXSERVE FUNC=1 (Dump System Storage) in your Controller application.
  Message W507 is displayed while the dump is in progress.
- Wait for the dump to complete (approximately two minutes).
  Message W507 disappears and the controller/terminal IPLs.
  Message W598 is logged when the dump is complete.
- When the dump is complete, continue at “Requesting a storage dump report” on page 363.

Note: Message W507 does not display if the dump is requested from your terminal application.

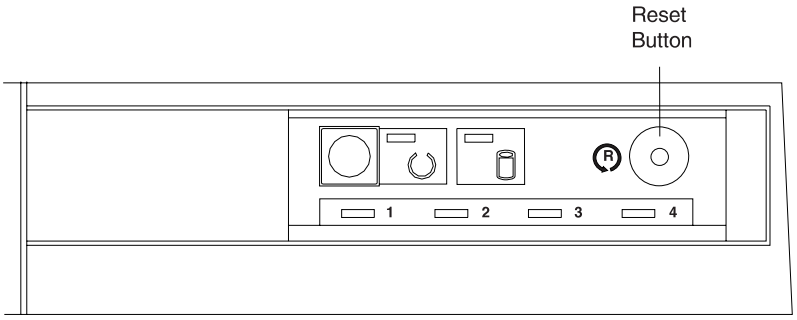


Figure 2. Location of 4693 reset button

Requesting a terminal storage dump

IBM 4683 Point-of-Sale terminal

A dump can be requested using one of the following methods:

- Press the Mod1 terminal dump switch shown in Figure 3 on page 362.

  If the terminal is a Mod2, the dump switch on its partner must be pressed.
- Select option **8**, Dump Terminal Storage, from the TERMINAL FUNCTIONS panel of your store controller.
- Press the key sequence, **S1 9898 S2**, on the terminal keyboard.
- Program the ADXSERVE FUNC=1 (Dump System Storage) in your terminal application.

  Note: If the 4683 IPLs without displaying U008, check to ensure that the dump file, ADXCSLTF.DAT, exists in the ADX_SDT1 subdirectory of your store controller. If this file does not exist, then you need to create one. The content of the file is not important but no storage dump will be taken if this file does not exist at the time the dump request is made.
- Wait for the dump to complete (approximately 10 minutes per MB of terminal RAM). Message U008 disappears and the 4683 IPLs. Either message W052, W053 or W410 is logged when the dump is complete depending on how the dump was requested.
- When the dump is complete, go to the store controller and continue at “Requesting a storage dump report” on page 363.

Message U008 is displayed while the dump is in progress.

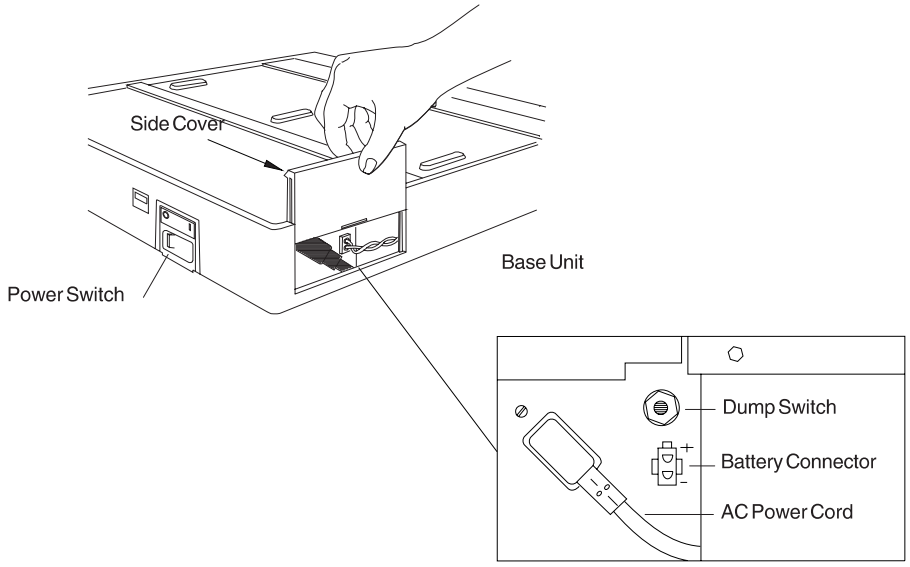


Figure 3. Location of terminal dump switch on 4683 Mod1 terminals

IBM 4693/SurePOS 300 Series/SurePOS 700 Series Point-of-Sale terminal

Note: To get a terminal storage dump for a controller/terminal, follow the steps listed in “IBM 4693, 4694, and SurePOS 700 Series controller/terminal” on page 360 instead of the steps listed here.

A dump can be requested using one of the following methods:

- Press the reset button shown in Figure 2 on page 361.

  Note: If the terminal is a 4693-2x2, the reset button must be pressed on its partner terminal.
- Select option **8**, Dump Terminal Storage, from the TERMINAL FUNCTIONS panel of your store controller.
- Program the ADXSERVE FUNC=1 (Dump System Storage) in your terminal application.
- Press the key sequence, **S1 9898 S2**, on the terminal keyboard.

  Note: If the 4693 IPLs without displaying *xxxxxxxx* count with U008, check to ensure the dump file, ADXCSLTF.DAT, exists in the ADX_SDT1 subdirectory of your store controller. If this file does not exist, then you need to create one. The content of the file is not important but no storage dump will be taken if this file does not exist at the time the dump request is made. The ADXCSLTF.DAT file is then replaced by the terminal storage dump.
- Wait for the dump to complete. Message U008 *xxxxxxxx* disappears and the 4693 IPLs. Either message W052, W053 or W410 are logged when the dump is complete depending on how the dump was requested.
- When the dump is complete, continue at “Requesting a storage dump report” on page 363.

Message U008 *xxxxxxxx* is displayed while the dump is in progress. *xxxxxxxx* is a count of RAM bytes left to be dumped. The dump is in progress as long as the count is decreasing.

IBM 4694 Point-of-Sale terminal

Requesting a terminal storage dump is the same as for the IBM 4693 Point of Sale Terminal, except:

- A reset button might not be available. Availability depends on the model and the installed adapters. If a reset button is available on your system, it will be at the rear of the terminal.
- The *xxxxxxxx* might only be available if a video display is attached.

See “IBM 4693/SurePOS 300 Series/SurePOS 700 Series Point-of-Sale terminal” on page 362.

Requesting a storage dump report

1. Press **Alt+Sysreq** on your store controller keyboard. The SYSTEM KEYS panel displays.
2. On the SYSTEM KEYS panel, select option **s**, Start New Application (displays the SYSTEM MAIN MENU).

```
                          SYSTEM KEYS

      System Keys are used to request special control functions.  Their action
      is independent of the current applications.  They have no direct effect
      on the current application, even though its screen will no longer be
      displayed.

      Type one of the following letters or a function key.

      m   Access the System Message Display Screen.
      c   Access the Store Control Functions Screen.
      b   Access the Background Application Control screen.
      s   Start new application.  (displays the SYSTEM MAIN MENU)
      w   Access the Window Control screen.
      n   pass control to the next higher numbered window
          owned by this operator (Next).
      p   pass control to the next lower numbered window
          owned by this user (Preceding).
      a   Access the Auxiliary Console Control screen.
      t   Switch to Terminal Mode.


  F1   F2   F3Quit F4   F5   F6   F7   F8   F9Disconnct
```

3. On the SYSTEM MAIN MENU panel, select option **6**, Problem Analysis Reports.

```
                        SYSTEM MAIN MENU

      Select one of the following:

      1   (User-defined text appears here)
      2   (User-defined text appears here)
      3   File Utilities
      4   Installation and Update Aids
      5   Problem Analysis Data Collection
      6   Problem Analysis Reports
      7   Command Mode

      Type your selection number, then press Enter _



   F1Help F2   F3     F4   F5   F6   F7   F8   F9Signoff
```

4. On the PROBLEM ANALYSIS REPORT panel, select option **4**, Format Dump Data.

```
                     PROBLEM ANALYSIS REPORT

      Select one of the following:

      1   Scan System Log Data
      2   Format System Trace Data
      3   Format Performance Data
      4   Format Dump Data
      5   Create Problem Analysis Diskette

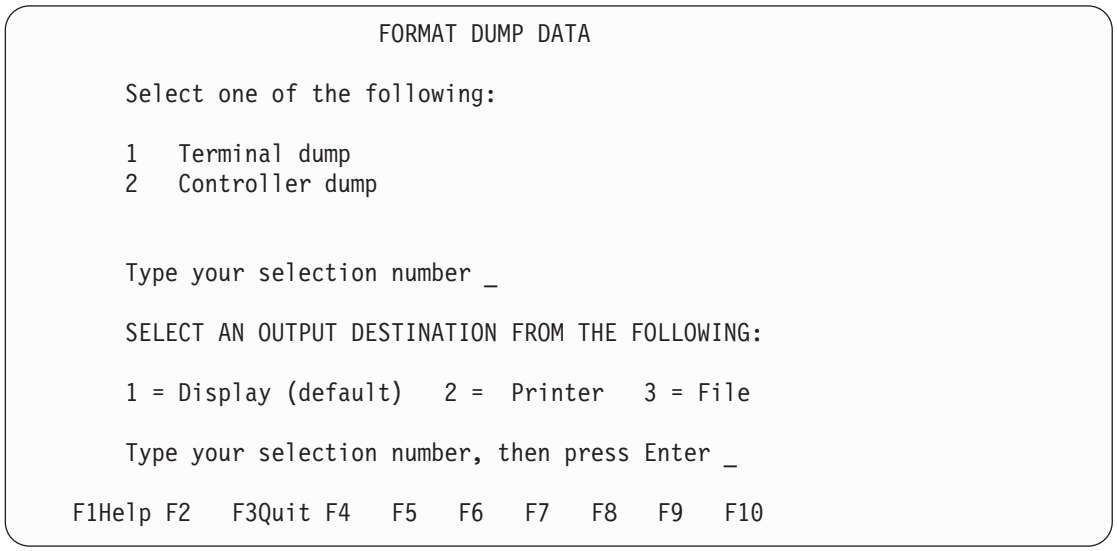
      Type your selection number, then press Enter _




   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

5. On the FORMAT DUMP DATA panel, select the option for the dump you want to format and then select option **1**, Display, for your output destination.

   Note: To prepare the Dump Report for copying to a problem analysis diskette, select option **3**, File, for the output destination.


FORMAT DUMP DATA
Select one of the following:
1 Terminal dump
2 Controller dump
Type your selection number _
SELECT AN OUTPUT DESTINATION FROM THE FOLLOWING:
1 = Display (default) 2 = Printer 3 = File
Type your selection number, then press Enter _
F1Help F2 F3Quit F4 F5 F6 F7 F8 F9 F10

6. Examine the terminal address (if applicable), date, time, and reason for the dump to determine if the dump file contains the dump you requested. If the dump file does not contain the dump you requested, try to recreate the problem and request the storage dump again.
7. Press **Esc** to return to the PROBLEM ANALYSIS REPORT panel.
8. If you plan to create a problem analysis diskette, continue at step 4 on page 366. When the SYSTEM LOG REPORT panel appears, select option**7**, All of the Above Reports.

   Note: You can return to the SYSTEM MAIN MENU by pressing **Esc**, then **F3**.

Requesting a system log report

1. Press **Alt+Sysreq** on your store controller keyboard. The SYSTEM KEYS panel displays.

2. On the SYSTEM KEYS panel, select option **s**, Start New Application (displays the SYSTEM MAIN MENU).

```
                              SYSTEM KEYS

      System Keys are used to request special control functions.  Their action
      is independent of the current applications.  They have no direct effect
      on the current application, even though its screen will no longer be
      displayed.

      Type one of the following letters or a function key.

      m   Access the System Message Display Screen.
      c   Access the Store Control Functions Screen.
      b   Access the Background Application Control screen.
      s   Start new application.  (displays the SYSTEM MAIN MENU)
      w   Access the Window Control screen.
      n   pass control to the next higher numbered window
          owned by this operator (Next).
      p   pass control to the next lower numbered window
          owned by this user (Preceding).
      a   Access the Auxiliary Console Control screen.
      t   Switch to Terminal Mode.


   F1   F2   F3Quit F4   F5   F6   F7   F8   F9Disconnct
```

3. On the SYSTEM MAIN MENU panel, select option **6**, Problem Analysis Reports.

```
                           SYSTEM MAIN MENU

      Select one of the following:

      1   (User-defined text appears here)
      2   (User-defined text appears here)
      3   File Utilities
      4   Installation and Update Aids
      5   Problem Analysis Data Collection
      6   Problem Analysis Reports
      7   Command Mode

      Type your selection number, then press Enter _


   F1Help F2   F3     F4   F5   F6   F7   F8   F9Signoff
```

4. On the PROBLEM ANALYSIS REPORT panel, select option **1**, Scan System Log Data.

```
                    PROBLEM ANALYSIS REPORT

      Select one of the following:

      1   Scan System Log Data
      2   Format System Trace Data
      3   Format Performance Data
      4   Format Dump Data
      5   Create Problem Analysis Diskette

      Type your selection number, then press Enter _




   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

5. On the SYSTEM LOG REPORT panel, select an option. Option numbers 1 through 6 correspond to the System Log sections. For example: option**1** is section B1, option **2** is section B2, and so on.

```
                        SYSTEM LOG REPORT

      Select one of the following:

      1   Controller Hardware Errors
      2   Terminal Hardware Errors
      3   Terminal Events
      4   Controller Events
      5   System Events
      6   Application Events
      7   All of the above reports

      Type your selection number, then press Enter _



   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

6. As the next panels appear, make selections to perform your tasks. To prepare the System Log Report for copying to a problem analysis diskette, select destination **3** = File.

```
                  SYSTEM LOG REPORT

       START SCAN  Date  (mm/dd/yy)     01/01/94
                   Time  (hh:mm)        00:00

       STOP SCAN   Date  (mm/dd/yy)     12/31/99
                   Time  (hh:mm)        23:59

               CONTROLLER ID     *
               TERMINAL NUMBER   *
               SEVERITY          *
               MESSAGE GROUP     *
               MESSAGE NUMBER    *
               SOURCE NUMBER     *
               EVENT NUMBER      *

               DESTINATION       1     1 = Display  2 = Printer  3 = File
               FORMAT MODE       1     1 = Long     2 = Short    3 = Both

    When complete, press ENTER.

   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

7. When the display indicates that the report creation is complete, press **Esc** to return to the PROBLEM ANALYSIS REPORT panel.
8. If you plan to create a problem analysis diskette, continue at step 4 on page 369. When the CREATE PROBLEM ANALYSIS DISKETTE panel appears, select **System Log Report**, and then **Terminal Dump** or **Controller Dump**.

   Note: You can return to the SYSTEM MAIN MENU by pressing **F3** at the PROBLEM ANALYSIS DISKETTE panel.

Creating a problem analysis diskette or data file

1. Press **Alt+Sysreq** on your store controller keyboard.

   Note: If you are copying the System Log Report to the problem analysis diskette, you must first write the System Log Report to a file. The SYSTEM KEYS panel displays.
2. On the SYSTEM KEYS panel, select option **s**, Start New Application (displays the SYSTEM MAIN MENU).

```
                          SYSTEM KEYS

      System Keys are used to request special control functions.  Their action
      is independent of the current applications.  They have no direct effect
      on the current application, even though its screen will no longer be
      displayed.

      Type one of the following letters or a function key.

      m   Access the System Message Display Screen.
      c   Access the Store Control Functions Screen.
      b   Access the Background Application Control screen.
      s   Start new application.  (displays the SYSTEM MAIN MENU)
      w   Access the Window Control screen.
      n   Pass control to the next higher numbered window
          owned by this operator (Next).
      p   Pass control to the next lower numbered window
          owned by this user (Preceding).
      a   Access the Auxiliary Console Control screen.
      t   Switch to Terminal Mode.


   F1   F2   F3Quit F4   F5   F6   F7   F8   F9Disconnct
```

3. On the SYSTEM MAIN MENU panel, select option **6**, Problem Analysis Reports.

```
                        SYSTEM MAIN MENU

      Select one of the following:

      1   (User-defined text appears here)
      2   (User-defined text appears here)
      3   File Utilities
      4   Installation and Update Aids
      5   Problem Analysis Data Collection
      6   Problem Analysis Reports
      7   Command Mode

      Type your selection number, then press Enter _


   F1Help F2   F3     F4   F5   F6   F7   F8   F9Signoff
```

4. On the PROBLEM ANALYSIS REPORTS panel, select option**5**, Create Problem Analysis Diskette.

```
                      PROBLEM ANALYSIS REPORTS

       Select one of the following:

       1   Scan System Log Data
       2   Format System Trace Data
       3   Format Performance Data
       4   Format Dump Data
       5   Create Problem Analysis Diskette

       Type your selection number, then press Enter _

   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

5. On the CREATE PROBLEM ANALYSIS DISKETTE panel, select the reports and dumps to be copied to the diskette or the hard disk drive. Choose the fixed disk destinations only if the person responsible for problem analysis (such as the Help Desk, Store Programmer, or IBM Support Center) can retrieve the compressed files to a host site.

```
 CSRAS006             CREATE PROBLEM ANALYSIS DISKETTE

      Type the desired drive selection:


          DESTINATION   6   1 = DISKETTE DRIVE A
                            2 = DISKETTE DRIVE B
                            3 = OPTICAL DISK O
                            4 = FIXED DISK C
                            5 = FIXED DISK D
                            6 = OTHER LOCATION

      Type file name, then press Enter.  The file name entered
      will first be erased before continuing.

      FILE NAME


F1HELP F2     F3QUIT  F4      F5      F6      F7      F8      F9      F10
 Time=18:50   Current Window=1 Number of Windows=1   SYSTEM MESSAGE AVAILABLE
```

When compressing to diskette, the * choice transfers data until the diskette is full. Compression continues after a new diskette is inserted. If the hard disk drive has insufficient free space available to allow compression to continue, use the 0 choice to copy uncompressed data to diskette.

```
                CREATE PROBLEM ANALYSIS DISKETTE

   Type an X by the items you wish to be copied to the drive:

                            MODIFICATION   STATUS
                                DATE
       SYSTEM LOG REPORT
       TERMINAL DUMP
       CONTROLLER DUMP
       SYSTEM TRACE REPORT
       PERFORMANCE REPORT
       MODULE LEVEL REPORT


   The displayed value is the default:

       SIZE OF       *   0 = DO NOT COMPRESS FILES
       OUTPUT FILES      * = NO MAXIMUM KB



   Insert a formatted diskette into the selected drive.
   To continue, press ENTER.

 F1Help F2   F3Quit F4   F5   F6   F7CONT F8RETRY F9BYPASS F10
```

When compressing to the hard disk drive, the * choice places all data into a single file that can be retrieved to the host. The 1 choice compresses data into 1 MB files, which reduces the amount of data to retrieve should a host transmission error occur. A list of compressed files is recorded in the problem analysis abstract file.

```
                CREATE PROBLEM ANALYSIS DISKETTE

   Type an X by the items you wish to be copied to the drive:

                            MODIFICATION   STATUS
                                DATE
       SYSTEM LOG REPORT
       TERMINAL DUMP
       CONTROLLER DUMP
       SYSTEM TRACE REPORT
       PERFORMANCE REPORT
       MODULE LEVEL REPORT


   The displayed value is the default:

       SIZE OF       1   1 = 1024 KB
       OUTPUT FILES      * = NO MAXIMUM KB



   To continue, press ENTER.

 F1Help F2   F3Quit F4   F5   F6   F7CONT F8RETRY F9BYPASS F10
```

Note: The DOS TERMINAL DUMP option shown on the previous panel is only available on the menu if the IBM 4690 Terminal Services for DOS feature is installed.

6. If copying to diskette, obtain formatted diskettes and insert one into the appropriate drive.

   Note: To copy any of the reports to the selected drive, you must first request the report and then write it to a file by selecting option **3**, File, for destination during the request procedure.

7. When the display indicates that the diskette or the hard disk drive file creation is complete, press **F3** twice to return to the SYSTEM MAIN MENU.

If copying to diskettes, remove the last diskette from the drive, label all of the diskettes and give them to the person responsible for problem analysis diskettes (such as the Help Desk, Store Programmer, or the IBM Support Center for Software Assistance).

If copying to a hard disk drive, contact the person responsible for problem analysis diskettes to retrieve the files to the host site.

8. If copying to a CD-RW, the compressed files must be copied back to hard disk drive for further processing.

Requesting a system trace

A trace is a collection of data that is exchanged between two points for a specified length of time for the store loop, store controller disk, communications line, and device channel. For example, a communications line trace is a collection of communication message data passed between an application in the store controller and the external host processor over a communication link.

Obtaining a trace report involves: (1) collecting the data and (2) requesting a report of the data. Traces must be started and stopped to collect the information before you request a report. The report can be printed, displayed, or sent to the hard disk drive.

A trace runs until you stop it unless you choose the option to have the trace stop when its buffer gets full. You are not notified by the system when the trace buffer is full, even if you choose the option to have the trace stop.

Starting trace data collection

1. Press **Alt+Sysreq** on your store controller keyboard.
2. The SYSTEM KEYS panel displays.
3. On the SYSTEM KEYS panel, select option **s**, Start New Application (displays the SYSTEM MAIN MENU).

```
                          SYSTEM KEYS

      System Keys are used to request special control functions.  Their action
      is independent of the current applications.  They have no direct effect
      on the current application, even though its screen will no longer be
      displayed.

      Type one of the following letters or a function key.

      m   Access the System Message Display Screen.
      c   Access the Store Control Functions Screen.
      b   Access the Background Application Control screen.
      s   Start new application.  (displays the SYSTEM MAIN MENU)
      w   Access the Window Control screen.
      n   pass control to the next higher numbered window
          owned by this operator (Next).
      p   pass control to the next lower numbered window
          owned by this user (Preceding).
      a   Access the Auxiliary Console Control screen.
      t   Switch to Terminal Mode.


   F1   F2   F3Quit F4   F5   F6   F7   F8   F9Disconnct
```

4. On the SYSTEM MAIN MENU panel, select option **5**, Problem Analysis Data Collection.

```
                        SYSTEM MAIN MENU

      Select one of the following:

      1   (User-defined text appears here)
      2   (User-defined text appears here)
      3   File Utilities
      4   Installation and Update Aids
      5   Problem Analysis Data Collection
      6   Problem Analysis Reports
      7   Command Mode

      Type your selection number, then press Enter _


   F1Help F2   F3     F4   F5   F6   F7   F8   F9Signoff
```

5. On the PROBLEM ANALYSIS DATA COLLECTION panel, select option **1**, START Trace Data Collection.

```
                PROBLEM ANALYSIS DATA COLLECTION

      Select one of the following:

      1   START    Trace Data Collection
      2   START    Performance Data Collection
      3   STOP     Trace Data Collection
      4   STOP     Performance Data Collection

      Type your selection number, then press Enter _




   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

6. On the START TRACE DATA COLLECTION panel, select the types of traces you want and press **Enter**.

   If you select a trace type of DEVICE CHANNEL and press **Enter**, you are prompted to enter a terminal number before you are prompted to type in your MODE selection.

   For all other traces, the next panel to appear after you make your trace selection is the MODE selection panel.

```
                  START TRACE DATA COLLECTION

      Type an X by the trace(s) you wish to select.

          LOOP
          DISK
          COMMUNICATIONS LINE
          DEVICE CHANNEL
          LAN:
            TOKEN RING
            ETHERNET

      When complete, press ENTER.




   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

7. Select the MODE by typing in **1** or **2**.
   MODE 1 = Allow trace data buffer to wrap.
   MODE 2 = Stop trace when data buffer becomes full.

   Note: Allowing the data buffer to wrap allows you to continue collecting trace data indefinitely. You can stop the trace and capture the data when an error or event occurs. This option is used primarily for tracing intermittent problems.

   When capturing a LAN trace, you are also given the option of selecting specific frame types (SAP values) that you want to trace. This is done on the LAN TRACE PREPROCESSING panel. There are two of these panels; one for token ring and one for Ethernet. One or both of these panels are displayed, depending upon which LAN trace options you selected on the previous panel.

Note: When selecting a FRAME TYPE, you are only allowed to select a frame type that is valid for that network. For example, if you have an Ethernet TCC LAN type, there is only TCC and RPL traffic on this network. If you try to select SNA, NetBIOS, or TCP/IP frames for the Ethernet trace, an error message is displayed.

The next panel shows the LAN TRACE PREPROCESSING panel for token ring. The Ethernet panel is identical except that Ethernet replaces token ring in the title.

```
                    LAN TRACE PREPROCESSING
                             Token Ring

       Type the necessary information.

       TRACE TYPE         2             1 = All frames
                                        2 = Selected frames

       FRAME TYPE         1             1 = Any SAP value
                                        2 = TCC
                                        3 = SNA
                                        4 = NetBIOS
                                        5 = TCP/IP
                                        6 = RPL
                                        7 = Specific SAP value

       When complete, press ENTER.




   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

After you have completed the panels for the type of trace you selected, you are returned to the PROBLEM ANALYSIS DATA COLLECTION panel. The message `Traces started` appears on the message line.

8. Press **F3** to return to the SYSTEM MAIN MENU panel.

Stopping trace data collection

1. On the SYSTEM MAIN MENU panel, select option **5**, Problem Analysis Data Collection.

```
                         SYSTEM MAIN MENU

       Select one of the following:

       1   (User-defined text appears here)
       2   (User-defined text appears here)
       3   File Utilities
       4   Installation and Update Aids
       5   Problem Analysis Data Collection
       6   Problem Analysis Reports
       7   Command Mode

       Type your selection number, then press Enter _



   F1Help F2   F3     F4   F5   F6   F7   F8   F9Signoff
```

2. On the PROBLEM ANALYSIS DATA COLLECTION panel, select option **3**, STOP Trace Data Collection.

```
                  PROBLEM ANALYSIS DATA COLLECTION

       Select one of the following:

       1   START    Trace Data Collection
       2   START    Performance Data Collection
       3   STOP     Trace Data Collection
       4   STOP     Performance Data Collection

       Type your selection number, then press Enter _




   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

   The message `Trace data collection has been stopped` appears on the message line of this panel.
3. Press **F3** to return to the SYSTEM MAIN MENU panel.

Requesting a trace report

1. On the SYSTEM MAIN MENU panel, select option **6**, Problem Analysis Reports.

```
                        SYSTEM MAIN MENU

       Select one of the following:

       1   (User-defined text appears here)
       2   (User-defined text appears here)
       3   File Utilities
       4   Installation and Update Aids
       5   Problem Analysis Data Collection
       6   Problem Analysis Reports
       7   Command Mode

       Type your selection number, then press Enter _



   F1Help F2   F3     F4   F5   F6   F7   F8   F9Signoff
```

2. On the PROBLEM ANALYSIS REPORTS panel, select option **2**, Format System Trace Data.

```
                    PROBLEM ANALYSIS REPORTS

    Select one of the following:

    1   Scan System Log Data
    2   Format System Trace Data
    3   Format Performance Data
    4   Format Dump Data
    5   Create Problem Analysis Diskette

    Type your selection number, then press Enter _




F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

3. On the SYSTEM TRACE REPORT panel, select the trace and the destination that you want.

   Note: To get the Trace Report ready to copy to a problem analysis diskette, select option **3**, Fixed Disk, for destination.

```
                    SYSTEM TRACE REPORT

Select one from each of the following:

AVAILABLE     1   1 = All (Reports will be intermixed)
REPORTS           2 = Loop
                  3 = Disk
                  4 = Communications Line
                  5 = Device Channel
                  6 = Token Ring
                  7 = Ethernet

DESTINATION   1   1 = Display
                  2 = Printer
                  3 = Fixed Disk

When complete, press ENTER.

F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

   Note: If a LAN media type is selected on the SYSTEM TRACE REPORT panel, the next panel displayed is the LAN TRACE REPORT. On this panel, you can choose to report all frames or selected frames, such as specific SAP values or partner LAN addresses. Depending upon which LAN media you choose, either a token-ring LAN TRACE REPORT or an Ethernet LAN TRACE REPORT panel appears. The next panel shows an example of the token-ring LAN TRACE REPORT. The Ethernet LAN TRACE REPORT panel is exactly the same except Ethernet replaces token ring in the title.

```
                      LAN TRACE REPORT
                           Token Ring

 Type the necessary information.

 REPORT TYPE       2          1 = All frames
                              2 = Selected frames

 FRAME TYPE        1          1 = Any SAP value
                              2 = TCC
                              3 = SNA
                              4 = NetBIOS
                              5 = TCP/IP
                              6 = RPL
                              7 = Specific SAP value

PARTNER LAN ADDRESSES
[          ]  [          ]  [          ]  [          ]
[          ]  [          ]  [          ]  [          ]

 F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

4. When the display indicates that report creation is complete, press **F3** twice to return to the SYSTEM MAIN MENU panel.

If you selected option **5**, Device Channel, see “Device IDs for the 4683 Terminal” on page 420, “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423, or “Device IDs for USB devices attached to SurePOS 300/700 Series terminal” on page 427 to find the ID of each terminal device.

Requesting performance data

Performance is affected by the demands that are placed on the most important resources in the system. These resources are the hard disk drive, controller processor, store loop, device channel, and token ring.

Collect performance data by starting the performance monitor.

Starting performance monitoring

1. Press **Alt+Sysreq** on your store controller keyboard. The SYSTEM KEYS panel displays.
2. On the SYSTEM KEYS panel, select option **s**, Start New Application (displays the SYSTEM MAIN MENU).

```
                          SYSTEM KEYS

      System Keys are used to request special control functions.  Their action
      is independent of the current applications.  They have no direct effect
      on the current application, even though its screen will no longer be
      displayed.

      Type one of the following letters or a function key.

      m   Access the System Message Display Screen.
      c   Access the Store Control Functions Screen.
      b   Access the Background Application Control screen.
      s   Start new application.  (displays the SYSTEM MAIN MENU)
      w   Access the Window Control screen.
      n   pass control to the next higher numbered window
          owned by this operator (Next).
      p   pass control to the next lower numbered window
          owned by this user (Preceding).
      a   Access the Auxiliary Console Control screen.
      t   Switch to Terminal Mode.


   F1   F2   F3Quit F4   F5   F6   F7   F8   F9Disconnct
```

3. On the SYSTEM MAIN MENU panel, select option **5**, Problem Analysis Data Collection.

```
                        SYSTEM MAIN MENU

      Select one of the following:

      1   (User-defined text appears here)
      2   (User-defined text appears here)
      3   File Utilities
      4   Installation and Update Aids
      5   Problem Analysis Data Collection
      6   Problem Analysis Reports
      7   Command Mode

      Type your selection number, then press Enter _


   F1Help F2   F3     F4   F5   F6   F7   F8   F9Signoff
```

4. On the PROBLEM ANALYSIS DATA COLLECTION panel, select option **2**, START Performance Data Collection.

```
                PROBLEM ANALYSIS DATA COLLECTION

     Select one of the following:

     1   START    Trace Data Collection
     2   START    Performance Data Collection
     3   STOP     Trace Data Collection
     4   STOP     Performance Data Collection

     Type your selection number, then press Enter _




  F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

5. On the START PERFORMANCE DATA COLLECTION panel, enter a terminal number (if applicable) and then enter the time. The store controller can monitor only terminals on its local TCC network. Only one terminal can be monitored at a time, and then only if the monitoring time is 60 minutes or less. Controller resources can be monitored for up to 24 hours by specifying a blank for the terminal number.

```
                START PERFORMANCE DATA COLLECTION

    Type the necessary information.

    TERMINAL NUMBER        Valid entries are 1-999, or
                           blank if only the controller
                           is to be monitored. (NOTE:
                           Terminal Number is applicable
                           for monitoring times of 60
                           minutes or less only.)

    MONITORING TIME  00:00 (HH:MM) 10 minutes to 24 hours
                           Sampling Interval

                           = Monitoring Time x 1/60 for
                             times of 60 minutes or less.

                           = 1 minute for times greater
                             than 60 minutes.
    When complete, press ENTER.



  F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

6. When **Enter** is pressed on the START PERFORMANCE DATA COLLECTION panel, the PROBLEM ANALYSIS DATA COLLECTION panel appears with the message `Performance monitoring started` on the message line.
7. Press **F3** to return to the SYSTEM MAIN MENU panel.

Stopping performance monitoring

Performance monitoring is stopped automatically at the end of the time interval that is specified on the start performance panels. You must keep track of the time.

You can stop performance monitoring by selecting option **4**, STOP Performance Data Collection, on the PROBLEM ANALYSIS DATA COLLECTION panel. Stopping Performance Data Collection is not recommended because some of the data in the final report is not complete.

Requesting a performance report

After performance data has been collected, you must get a report of the data to use it. The report must be requested on the same controller on which the data was collected. You must do this because the report uses data, measured at the IPL, about this controller's performance to calculate the system use. Each controller has its own unique set of data.

1. On the SYSTEM MAIN MENU panel, select option **6**, Problem Analysis Reports.

```
                        SYSTEM MAIN MENU

      Select one of the following:

      1   (User-defined text appears here)
      2   (User-defined text appears here)
      3   File Utilities
      4   Installation and Update Aids
      5   Problem Analysis Data Collection
      6   Problem Analysis Reports
      7   Command Mode

      Type your selection number, then press Enter _


   F1Help F2   F3     F4   F5   F6   F7   F8   F9Signoff
```

2. On the PROBLEM ANALYSIS REPORTS panel, select option **3**, Format Performance Data.

```
                     PROBLEM ANALYSIS REPORTS

      Select one of the following:

      1   Scan System Log Data
      2   Format System Trace Data
      3   Format Performance Data
      4   Format Dump Data
      5   Create Problem Analysis Diskette

      Type your selection number, then press Enter _




   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

3. On the SYSTEM PERFORMANCE REPORTS panel, specify the type of reports you want.

Note: To prepare the Performance Report for copying to a problem analysis diskette, select option **3**, File, for destination.

```
                    SYSTEM PERFORMANCE REPORTS

      Select one from each of the following:

          AVAILABLE     1   1 = All Reports
          REPORTS           2 = Disk
                            3 = Controller Processor
                            4 = Loop
          REPORT STYLE  1   1 = Graph Summary
                            2 = Raw Utilization

          DESTINATION   1   1 = Display
                            2 = Printer
                            3 = File

      When complete, press ENTER.

  F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

Note: *Report 5*, Terminal Device Channel, is only available if you entered a terminal number on the START PERFORMANCE DATA COLLECTION panel.

4. If the data was collected for a period longer than one hour, another panel displays the start and stop time of the data collection. You can process and display (printed or filed) any period within the start and stop times.
5. When the display indicates that report creation is complete, press **F3** twice to return to the SYSTEM MAIN MENU panel.

Requesting store controller status

1. Press **Alt+Sysreq** on your store controller keyboard. The SYSTEM KEYS panel is displayed.
2. On the SYSTEM KEYS panel, select option **c**, Access the Store Control Functions Screen.

```
                          SYSTEM KEYS

      System Keys are used to request special control functions.  Their action
      is independent of the current applications.  They have no direct effect
      on the current application, even though its screen will no longer be
      displayed.

      Type one of the following letters or a function key.

      m   Access the System Message Display Screen.
      c   Access the Store Control Functions Screen.
      b   Access the Background Application Control screen.
      s   Start new application.  (displays the SYSTEM MAIN MENU)
      w   Access the Window Control screen.
      n   pass control to the next higher numbered window
          owned by this operator (Next).
      p   pass control to the next lower numbered window
          owned by this user (Preceding).
      a   Access the Auxiliary Console Control screen.
      t   Switch to Terminal Mode.


   F1   F2   F3Quit F4   F5   F6   F7   F8   F9Disconnct
```

Note: If the STORE CONTROL FUNCTIONS panel does not display after you selected option **c**, press **Esc**.

3. On the STORE CONTROL FUNCTIONS panel, select option **2**, Controller Functions.

```
                      STORE CONTROL FUNCTIONS

      Select one of the following:

      1   Terminal Functions
      2   Controller Functions
      3   TCC Functions
      4   Multiple Controller Functions
      5   System Functions
      6   Communications Functions

      Type your selection number, then press Enter _


   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

4. On the CONTROLLER FUNCTIONS panel, select option **1**, Display Controller Status.

```
                        CONTROLLER FUNCTIONS

       Select one of the following:

       1   Display Controller Status
       2   Enable Controller RAM Disk
       3   Disable Controller RAM Disk
       4   Load Controller Storage
       5   Dump Controller Storage

       Type your selection number, then press Enter _




   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

5. The following panel is an example of the CONTROLLER STATUS Page 1 panel.

```
                CONTROLLER STATUS               Page 1 of 2
                      ID - xx
                    Time - 00:00

Configured:  Master                   File Server
    Acting:  Master                   File Server

CONNECTION               CONFIGURED                STATUS
 Loop1                  Not Used
 Loop2                  Not Used
 LAN                    Primary/Backup          Controlling/Backingup

       System Trace -              INACTIVE
       Performance Monitor -       INACTIVE
       Controller RAM Disk -       INACTIVE
       Loop1 Automatic Resume -
       Loop2 Automatic Resume -
       LAN   Automatic Resume -    ACTIVE

       Press PgDn for additional controller status.
       To refresh the status, press F9.

   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9Refresh
```

6. The following panel is an example of the CONTROLLER STATUS Page 2 panel.

```
                CONTROLLER STATUS (LAN Status)   Page 2 of 2
                      ID - xx
                     Time - 00:00

                             Configured      Acting

       Master                    xx            xx
       File Server               xx            xx
       Alternate Master          xx            xx
       Alternate File Server     xx            xx

       Active Controller Connections:
           xx  xx

       Inactive Controller Connections:
           xx  xx  xx  xx  xx


       Press PgUp to see the previous page of controller status.
       Press PF8 for additional controller loop status.
       Press PF7 for additional controller LAN status.
       To refresh the status, press F9.

   F1     F2   F3Quit F4   F5   F6   F7LANstat F8Loopst F9Refresh
```

7. The following panel is an example of the CONTROLLER STATUS (TR Status) panel.

```
                CONTROLLER STATUS (LAN Status)   Page 1 of 1
                      ID - CC
                     Time - 00:00

Configured Controllers       CC    DD
Primary                      1

Backup               CC      --    0









           To refresh the status, press F9.

Note:  0 =  Configured NOT controlling, 1 = Configured AND controlling


   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9Refresh
```

8. The following panel is an example of the CONTROLLER STATUS (Loop Status) panel.

```
                CONTROLLER STATUS (Loop Status)   Page 1 of 1
                      ID - CC
                    Time - 00:00

Node  TCC-PATH   CONFIGURED        ACTING      AUTO-RESUME
CC    Loop1      Not Used
CC    Loop2      Not Used









   Note:  Only active controllers (Nodes) are listed.

          Press PgUp to see the previous page of controller-loop status.
          Press PgDn for additional controller-loop status.
          To refresh the status, press F9.

   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9Refresh
```

Item on the panel
Indicates

xx ID of the store controller

Type – Configured or Acting
Master, File Server, Alternate Master, Alternate File Server

TCC Path
Loop 1, 2, or LAN

Configured
Store TCC control, Not Used as a Store TCC

Status
Receiving Backup

System Trace
Active, Inactive

Performance Monitor
Active, Inactive

Controller RAM Disk
Active, Inactive

Automatic Resume
Active, Inactive

Verifying the level of software modules

This function enables you to obtain a report of the module and file levels for each IBM licensed software product and other software products that you have installed on your system.

Each product has either one or two of the following levels:
- The current level, which contains modules currently in use
- The maintenance level, which contains new modules and files
- The backup level, which contains modules and files that were in the current level and have been replaced.

Requesting a module level report

1. Press **Alt+Sysreq** on your store controller keyboard. The SYSTEM KEYS panel displays.
2. On the SYSTEM KEYS panel, select option **s**, Start New Application (displays the SYSTEM MAIN MENU).

```
                          SYSTEM KEYS

      System Keys are used to request special control functions.  Their action
      is independent of the current applications.  They have no direct effect
      on the current application, even though its screen will no longer be
      displayed.

      Type one of the following letters or a function key.

      m   Access the System Message Display Screen.
      c   Access the Store Control Functions Screen.
      b   Access the Background Application Control screen.
      s   Start New Application.  (displays the SYSTEM MAIN MENU)
      w   Access the Window Control screen.
      n   pass control to the next higher numbered window
          owned by this operator (Next).
      p   pass control to the next lower numbered window
          owned by this user (Preceding).
      a   Access the Auxiliary Console Control screen.
      t   Switch to Terminal Mode


  F1   F2   F3Quit F4   F5   F6   F7   F8   F9Disconnct
```

3. On the SYSTEM MAIN MENU panel, select option **4**, Installation and Update Aids.

```
           SYSTEM MAIN MENU

      Select one of the following:

      1   (User-defined text appears here)
      2   (User-defined text appears here)
      3   File Utilities
      4   Installation and Update Aids
      5   Problem Analysis Data Collection
      6   Problem Analysis Reports
      7   Command Mode

      Type your selection number, then press Enter _


  F1Help F2   F3     F4   F5   F6   F7   F8   F9Signoff
```

4. On the INSTALLATION AND UPDATE AIDS panel, select option **4**, Report Module Level.

```
              INSTALLATION AND UPDATE AIDS
      Select one of the following:

      1   Change Configuration Data
      2   Report Configuration Data
      3   Change Input Sequence Table Data
      4   Report Module Level
      5   Apply Software Maintenance
      6   Build Software Maintenance Control File
      7   System Message Audible Alarm Functions

      Type your selection number, then press Enter _



   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

5. On the REPORT MODULE LEVEL panel, select the licensed products that you want.

   Note: For a description of the reports with examples, see “Module level reports” on page 401.

```
              REPORT MODULE LEVEL

       Select one of the following:

       1   Product Summary Report
       2   Complete Report With Module Integrity
       3   Complete Report Without Module Integrity
       4   Module Level APAR Report
       5   APAR Search
       6   Installed Features Report

       Type your selection number, then press Enter _



   F1Help F2   F3Quit F4   F5   F6   F7   F8   F9   F10
```

6. The report is displayed or the display directs you to select options to create the report you want.

Interpreting the module level report

The header gives information for the entire product. Among this information is the program identification number (PID), program temporary fix (PTF), and the date that the last update was applied.

Each module or file has individual information. Among this information is the module type, the command, the action, and any errors.

Module Type describes the type of module.

Note: If the module type is blank, this indicates the module was provided through the “Build Software Maintenance Control File” utility.

Type	Meaning
IBM	IBM Sales Application module.
Sys	System module.

Command describes what is done to the current level during apply.

Command
Meaning

Replace
The current level is replaced by this module.

Add This new module is added.

Erase The current level is erased.

Nul Apply Software Maintenance was busy with this module when a power line disturbance (PLD) prevented completion.

Action describes how the module is applied to the current level.

Action Meaning

Apply Is applied normally.

Force Is force-applied.

Skip Is not applied.

Error describes any errors during reporting or applying the modules.

Error Meaning

Apply Error while Apply Software Maintenance was applying changes.

Cksum
The checksum calculated by either Report Module Level or Apply Software Maintenance does not match the checksum in the Product Control File.

Open Error while opening a module to check the checksum.

Read Error while reading a module to check the checksum.

NTFND
The file was not found.

Problem data collection form

Date _____ Time _____

Store Number _____ Controller Number _____ Terminal Number _____

Message (that you received) _____

Symptom (that you observed) _____

_____

Describe the Problem _____

_____

_____

_____

What were you trying to do? _____

_____

Can you make the problem happen again? _____ (Y=Yes, N=No)

What else was happening in the store? _____

_____

_____

Choose keywords from the list on the other side of this form.

Primary keywords: _____

Additional keywords: _____

Component ID = _____

TCC Network: Loop _____ Token-Ring _____ Ethernet _____

MAKE COPIES OF THIS FORM FOR FUTURE USE

Problem data collection form keywords

Primary Keywords	Description
AB	ABEND
PUBS	Pub ID, Chapter, Page, Section, Appendix, TNL
ADRS	Address, Displacement, Offset

Primary Keywords	Description
DEVS	Device Type and Model
FLDS	Fields, Label, Name
LVLS	Levels
MS	Message
OPCS	OP Codes, I/O Command Codes, T/P OP Codes, Request Codes
OVS	Overlaid Core
PCSS	Statements, Commands, JCL, Options, Parameters, Keys, Process Names, Environments, Special Characters, Diagnose Command, Responses, Physical Unit, Logical Unit
PIDS	Component
PRCS	Return Code, Status Code, Condition, Feedback
PTFS	PTF, APAR, Service Level
REGS	Registers
RIDS	Module, Macro, Csect, Exec, Access Method, Subroutine, Panel
SIG	Signal
VALUE	Value
WS	Wait State

Additional keywords	Description
ADCS	Advanced Data Communications for Stores
ALERT	Diagnostic information generated by a system that indicates potential system problems.
APPLPGM	Store Application Program
ANDISP	Alphanumeric Display
ANKBRD	Alphanumeric Keyboard
ANPOS	ANPOS Keyboard
ASM	Apply Software Maintenance
BALDUE	Balance Due
Bx/Sxxx/Exxx	The information in a message that indicates the System Log section, the Source of the problem, and the Event that occurred.
CASHDRAWER	The cash drawer on the terminal.
COMPILER	A program that decodes instructions and produces a machine language program that can be executed later.
CONFIG	Configuration is the process of creating operating system records that are used later by the system to ensure that software support exits for the hardware.
CONSOLE	The store controller keyboard and display.
CONTROLLER	The store controller that supports the TCC Network.
D/C/S	Department/Class/Stock
DEBUG	The process of correcting software errors.
DISK	The resident hard disk drive in the store controller.
DISKETTE	The resident hard diskette drive in the store controller.
DISPLAY	The monitor on the store controller.
DRIVES	The software component that controls a device.
DSX	Distributed Systems Executive
DUMP	The contents of the memory in the terminal or store controller.
EAN	European Article Number
EOT	End of Transmission
HANG	Describes a problem where an attached device does not accept input or the terminal or store controller will not continue to operate. For example, the keyboard does not accept input.
HOST	The system at the central-site.
INCORROUT	Describes a problem that is indicated by incorrect output.
IPL	Initial Program Load

Additional keywords	Description
KEYBOARD	50-Key Keyboard
LAN-TCC	Local Area Network
MCF	Multiple Controller Feature
MATRIXKBD	Matrix Keyboard
OCR	Optical Character Reader
OPDISP	Operator Display
PERFM	Describes a problem that is performance related.
PLD	Power Line Disturbance
PIPE	An in-memory buffer used by programs to exchange messages.
PROCESS	A task created by the operating system each time an application begins execution. The process is defined to the system by the existence of a process descriptor record.
RAMDISK	In-memory disk files (terminal or store controller)
RANPOS	Retail Alphanumeric Point-of-Sale Keyboard
RCxxxxxxxx	Return Code
READ	To acquire or interpret data from a storage device.
RML	Retail Modifiable Layout Keyboard
RPOS	Retail Point-of-Sale Keyboard
SCANNER	A device that reads and interprets bar codes, and generates signals corresponding to the bar code characters.
SESSIONxx	The identification of a session where *xx* equals a value from 1 to 64. The session is established by the operating system upon request to support communication between the store controller and one or more terminals.
SHOPDISP	Shopper Display
SVC	Supervisor Call
SYSFUNC	The function requested by pressing specially programmed keys on the terminal or store controller keyboard.
TAPE	Streaming Tape Drive
TERMINALS	Any combination of 4683, 4693, or 4694 Mod1 and Mod2 terminals.
TRACE	Collection of data exchanged between two points for a specified period of time.
UPC	Universal Product Code
USEREXIT	A call to user-written code from the main application.
VIDEODISP	Video Display
1520-A01	1520 Hand-Held Scanner Model A01
1520-A02	1520 Hand-Held Scanner Model A02
3687-2	3687-2 Checkout Scanner Model 002
4683	4683 terminal
4686	Retail Scanner
4687-1	Model 001 Scanner
4687-2	Model 002 Scanner/Scale
4693	4693 terminal
4694	4694 terminal
SurePOS 700 Series	SurePOS 700 Series terminal
SurePOS 300 Series	SurePOS 300 Series Model 350 terminal

Appendix B. Examples of 4690 Store System reports

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This appendix contains examples of some of the reports generated by the 4690 Store System.

Device channel trace report

Figure 4 on page 394 is an example of the device channel trace report. Some of the information in this report is intended to be used by service support personnel only. A detailed knowledge of hardware and software operations is required to interpret this information. The following list describes the various fields in this report.

1 The store where the report was generated.

2 The two-character node ID of the store controller where the report was generated.

3 The date the report was generated.

4 CONTROLLER – The node ID of the store controller that logged the message.

5 TERMINAL – The number (address) of the terminal that logged the message.

6 TIME – The time the message was logged.

7 LENGTH – The length (in bytes) of the message.

8 PORT – The type of terminal communicating on the device channel.

9 DEVICE – The name of the device communicating on the device channel. Some of the device names are generic. For example: RS-232 specifies any device that operates on that type of interface, such as a bar code reader or electronic funds transfer device.

10 DIRECTION – The direction of message flow. RCVE indicates flow from the device to the terminal. XMIT indicates flow from the terminal to the device.

11 SNRM TRANSMITTED – Set Normal Response Mode (SNRM) is a device transmission associated with polling.

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12 ROL RECEIVED – Receive On Line (ROL) is a terminal message associated with polling.

13 SEND CNT – A sequential count that is increased each time a transmission occurs. It can be used as a check of transmission integrity. The range is 0 to 14.

Note: This field is not present for an SNRM.

14 RECV CNT – A sequential count that is increased each time a reception occurs. It can be used as a check of reception integrity. The range is 0 to 14.

Note: This field is not present for an ROL.

15 STATUS – This is a 1 to 2 byte field containing a hexadecimal value that indicates the current status of the device. This field is only present for a RECV when SNRM is not indicated. See Note.

16 DATA – The unique data associated with the device command or status. The data is in hexadecimal and ASCII. See Note.

17 COMMAND – This is a 1 to 7 byte field containing a hexadecimal value that indicates the command that was executed by the device. This field is only present for a RECV when ROL is not indicated.

Note: This information is not intended to be used by customers. It is to be provided to IBM by the user when it is needed for problem analysis.

```
    CSMAS010              DEVICE CHANNEL TRACE REPORT
    Store 0001                Controller CC                  03/30/94
 ------------------------------------------------------------------------------
 CONTROLLER: CC    TERMINAL: 001                      TIME: 17:14:27
 LENGTH: 7         PORT: 4683-1   DEVICE: RS232 SLOT 2A SOCKET 25
 DIRECTION: RCVE   SNRM TRANSMITTED

 ------------------------------------------------------------------------------
    CONTROLLER: CC       TERMINAL: 001                        TIME: 17:14:27
    LENGTH: 211          PORT: 4683-1      DEVICE: RS232 SLOT 2B SOCKET 25
    DIRECTION: XMIT      ROL RECEIVED

 ------------------------------------------------------------------------------
    CONTROLLER: CC       TERMINAL: 001                        TIME: 17:14:27
    LENGTH: 7            PORT: 4683-1      DEVICE: RS232 SLOT 2A SOCKET 23
    DIRECTION: RCVE      SEND CNT: 8       RECV CNT: 0          STATUS: 0000
DATA: 0FAEAE *...*
 ------------------------------------------------------------------------------
    CONTROLLER: CC       TERMINAL: 001                        TIME: 17:14:27
    LENGTH: 7            PORT: 4683-1      DEVICE: RS232 SLOT 2B SOCKET 23
    DIRECTION: RCVE      SEND CNT: 8       RECV CNT: 2          STATUS: 0000
    DATA: 0DCAB4 *...*
 ------------------------------------------------------------------------------
    CONTROLLER: CC       TERMINAL: 001                       TIME:  17:14:28
    LENGTH: 6            PORT: 4683-1      DEVICE: MATRIX KEYBOARD 5A
    DIRECTION: RCVE      SEND CNT: 10      RECV CNT: 6          STATUS: 0010
    DATA: F0F6 *..*
 ------------------------------------------------------------------------------
    CONTROLLER: CC       TERMINAL: 001                       TIME:  17:14:28
    LENGTH: 16           PORT: 4683-1      DEVICE: MATRIX KEYBOARD 5B
    DIRECTION: XMIT      SEND CNT: 14      RCVE CNT: 14   COMMAND: 010000
    DATA: 2000000A782E0000000000 * ...x......*
 ------------------------------------------------------------------------------
```

Figure 4. Device Channel Trace Report

Disk trace report

Figure 5 on page 396 is an example of the Disk Trace Report. The following list describes the various fields in the report.

1 The store where the report was generated.

2 The two-character node ID of the store controller where the report was generated.

3 The date the report was generated.

4 CONTROLLER – The node ID of the store controller that logged the data.

5 TERMINAL – The number (address) of the terminal that logged the data. A terminal number (address) of 000 indicates this trace is not associated with a terminal.

6 TIME – The time the data was logged.

7 FUNCTION – The type of I/O function that was requested. See Note.

8 PROCESS – The name of the process in which the function was requested. This refers to the internal system name. See Note.

9 OFFSET – The offset (in hexadecimal bytes) from which this function proceeded into the affected file.

10 FILE – The full name of the affected file. This refers to the internal system name. See Note.

11 TYPE – The type of the affected file if known. For example: Keyed, Sequential, and so on.

12 SIZE – The size (in hexadecimal bytes) of the affected file (where applicable).

13 RC – The hexadecimal return code generated by the I/O operation and a description of the return code.

14 FLAGS – The status of flags applicable to the I/O operation. See Note.

15 DATA – A variable amount of unique data (in hexadecimal and ASCII) associated with the I/O operation.

Note: This information is intended to be used by service support personnel only. A detailed knowledge of hardware and software operations is required to interpret this information.

```
   CSMAS010                   DISK TRACE REPORT
   Store 0001                   Controller CC                   03/30/94
-------------------------------------------------------------------------------
   CONTROLLER: CC             TERMINAL: 000                   TIME: 08:01:00
   FUNCTION: CREATE           PROCESS: ADXOCFP2             OFFSET: 00000000
   FILE: C:ADXCSONF.DAT      TYPE: NONE               SIZE: 00000000
   RC: 80204004 FILE ALREADY EXISTS
   FLAGS: 0000000000000001   DATA: 0000000000000000 *........*
-------------------------------------------------------------------------------
   CONTROLLER: CC                TERMINAL: 000                 TIME: 08:01:00
   FUNCTION: INSTALL             PROCESS: ADXOCFP2           OFFSET: 00000000
   FILE: C:ADXCSONF.DAT          TYPE: NONE                    SIZE: 00000000
   RC: 80204004 DEVICE ALREADY EXISTS
   FLAGS: 0000000000000001       DATA: 2031322F31392030 * 12/19 0*
-------------------------------------------------------------------------------
   CONTROLLER: CC                TERMINAL: 000                 TIME: 08:02:00
   FUNCTION: OPEN                PROCESS: ADXOCFP2           OFFSET: 00000000
   FILE: C:ADXCSOMF.DAT          TYPE: NONE                    SIZE: 00000000
   RC: 80204005 DEVICE DOES NOT EXIST
   FLAGS: 0000000000000000       DATA: 0000000000000000 *........*
-------------------------------------------------------------------------------
   CONTROLLER: CC                TERMINAL: 000                 TIME: 08:02:01
   FUNCTION: RENAME              PROCESS: ADXOCFP2           OFFSET: 00000000
   FILE: C:ADXCSOMF.DAT          TYPE: NONE                    SIZE: 00000000
   RC: 80204005 ATTEMPT TO REPLACE A DRIVER IN USE
   FLAGS: 0000000000000000       DATA: 50524F4752414D20 *PROGRAM *
-------------------------------------------------------------------------------
   CONTROLLER: CC                TERMINAL: 000                 TIME: 08:02:01
   FUNCTION: WRITE               PROCESS: ADXOCFP2           OFFSET: 00000000
   FILE: C:ADXCSONF.DAT          TYPE: NONE                    SIZE: 00000000
   RC: 8020400C CANNOT ACCESS FILE DUE TO CURRENT USAGE
   FLAGS: 0000000000000001       DATA: 2031322F31392030 * 12/19 0*
-------------------------------------------------------------------------------
   CONTROLLER: CC                TERMINAL: 000                 TIME: 08:02:01
   FUNCTION: DELETE              PROCESS:                    OFFSET: 00000000
   FILE:                         TYPE: NONE                    SIZE: 00000000
   RC: 8020400C SUBDRIVE TYPE MISMATCH
   FLAGS: 0000000000000000       DATA: 0000000000000000 *........*
-------------------------------------------------------------------------------
```

Figure 5. Disk trace report

Communications line trace reports

Examples of the trace report for an SDLC line are shown in the following pages.

Communications line trace report (SDLC)

Figure 6 on page 398 is an example of the Communications Line Trace Report for an SDLC line. The following list describes the various fields in the report.

1 The store where the report was generated.

2 The two-character node ID of the store controller where the report was generated.

3 The date the report was generated.

4 CONTROLLER – The node ID of the store controller that logged the data.

5 TERMINAL – The number (address) of the terminal that logged the data. A terminal number (address) of 000 indicates this trace is not associated with a terminal.

6 TIME – The time the trace entry was made.

7 FUNCTION – The direction of the communication. RCVE indicates flow from the host system to the store controller. XMIT indicates flow from the store controller to the host system.

8 LINE – The name of the line being used for communication.

9 LINE ADDRESS – The address of the line being used for communication.

10 SEND/RCVE COUNT – The send and receive count. See Note 1.

11 RETURN CODE – The hexadecimal return code and a description of the return code. See Note 2.

12 TRANSMISSION HEADER – See Note 1.

13 REQUEST HEADER or RESPONSE HEADER – See Note 1.

14 DATA – This field is present when the logged data is non-zero. The length of the data field will vary depending on the SDLC command contained in the entry.

15 COMMAND – The hexadecimal command and its definition. See Note 1.

16 RCVE COUNT – Receive Count – See Note 1.

17 #BITS LAST BYTE – This field is present only for RCVE functions. See Note 2.

Notes:

1. For further information, refer to the *IBM System Network Architecture Reference Summary* , GA27-3136.
2. For further information, refer to the *IBM PC Technical Reference for Options and Adapters* Vol I (IBM part number 6137804) and Vol II (IBM part number 6137806).

```
   CSMAS010                  COMMUNICATIONS LINE TRACE REPORT
   Store 0001                 Controller ME                          03/30/94
-------------------------------------------------------------------------------
   CONTROLLER: ME       TERMINAL: 000                                TIME: 10:24:44
   FUNCTION: XMIT       LINE: RCMSLINE                               LINE ADDR: C9
   SEND/RCVE COUNT: 6/1                    RETURN CODE: 0D FRAME TRANSMIT COMPLETE
   TRANSMISSION HEADER: 2C0001020BF2
   REQUEST HEADER:      009000     00000000 10010000 00000000
                                   FMD,DR1I,ERI
   DATA: 248B1E2AB48B0E28B483C10603C84141 *$..*...(......AA*
         B82000505351FF7666FF76           *. .PSQ.vf.v*
-------------------------------------------------------------------------------
   CONTROLLER: ME       TERMINAL: 000                                TIME: 10:24:45
   FUNCTION: XMIT       LINE: RCMSLINE                               LINE ADDR: C9
   SEND/RCVE COUNT: 6/2                    RETURN CODE: 0D FRAME TRANSMIT COMPLETE
   TRANSMISSION HEADER: 2C0001020BF3
   REQUEST HEADER:      009000     00000000 10010000 00000000
                                   FMD,DR1I,ERI
   DATA: 8B1E2AB48B0E28B483C10603C883C14E *..*...(........N*
         B8240050C4766426FF740A           *.$.P.vd&;t.*
-------------------------------------------------------------------------------
   CONTROLLER: ME       TERMINAL: 000                                TIME: 10:24:45
   FUNCTION: XMIT       LINE: RCMSLINE                               LINE ADDR: C9
   COMMAND: D1  RR      RCVE COUNT: 6       RETURN CODE: 0D FRAME TRANSMIT COMPLETE
-------------------------------------------------------------------------------
   The following entry cannot be formatted.
-------------------------------------------------------------------------------
   CONTROLLER: ME       TERMINAL: 000                                TIME: 10:24:17
   FUNCTION: RCVE       LINE: ADCSLINE                               LINE ADDR: C1
   COMMAND: 31  RR      RCVE COUNT: 1           #BITS LAST BYTE: E0 ALL 8 BITS
-------------------------------------------------------------------------------
   CONTROLLER: ME       TERMINAL: 000                                TIME: 10:24:18
   FUNCTION: XMIT       LINE: RCMSLINE                               LINE ADDR: C9
   SEND/RCVE COUNT: 6/6                    RETURN CODE: 0D FRAME TRANSMIT COMPLETE
   TRANSMISSION HEADER: 2C0001020BD7
   REQUEST HEADER:      009000     00000000 10010000 00000000
                                   FMD,DR1I,ERI
   DATA: 900083C274515250530EE824058BE585 *....tQRPS..$....*
         C07412C47616268B440226           *.t..v.&;D.&*
-------------------------------------------------------------------------------
   CONTROLLER: ME       TERMINAL: 000                                TIME: 10:24:18
   FUNCTION: XMIT       LINE: RCMSLINE                               LINE ADDR: C9
   COMMAND: D1  RR      RCVE COUNT: 6       RETURN CODE: 0D FRAME TRANSMIT COMPLETE
-------------------------------------------------------------------------------
```

Figure 6. Communications line trace report (SDLC)

Communications line trace report (X.25)

Figure 7 on page 400 is an example of the Communications Line Trace Report for an X.25 line. The following list describes the various fields in the report.

1 The store where the report was generated.

2 The two-character node ID of the store controller where the report was generated.

3 The date the report was generated.

4 CONTROLLER – The node ID of the store controller that logged the data.

5 TERMINAL – The number (address) of the terminal that logged the data. A terminal number (address) of 000 indicates this trace is not associated with a terminal.

6 TIME – The time the trace entry was made.

7 FUNCTION – The direction of the communication. RCVE indicates flow from the host system to the store controller. XMIT indicates flow from the store controller to the host system.

8 LINE – The name of the line being used for communication.

9 LINE ADDRESS – The address of the line being used for communication.

10 SEND/RCVE COUNT – The send and receive count. See Note 1.

11 #BITS LAST BYTE – This field is present only for RCVE functions. See Note 2.

12 PACKET HEADER – See Note 3.

13 Q-BIT – Qualifier Bit. See Note 3.

14 through 19 : See Note 3.

20 COMMAND – The hexadecimal command and its definition. See Note 1.

21 RCVE COUNT – Receive Count – See Note 1.

22 RETURN CODE – The hexadecimal return code and a description of the return code. See Note 2.

23 through 28 : See Note 3.

29 DATA – This field is present when the logged data is non-zero. The length of the data field will vary depending on the X.25 command contained in the entry.

30 through 32 : See Note 3.

Notes:

1. For further information, see “SNA Formats” in the *IBM System Network Architecture Reference Summary* , GA27-3136.
2. For further information, refer to the *IBM PC Technical Reference for Options and Adapters* , Vol I (IBM part number 6137804) and Vol II (IBM part number 6137804).
3. For a description of these fields, refer to the *IBM X.25 Interface for Attaching SNA Nodes to Packet-Switched Data Networks, General Information Manual* , GA27-3345.

```
    CSMAS010                 COMMUNICATIONS LINE TRACE REPORT
    Store 0001                Controller CC                          03/30/94
  ------------------------------------------------------------------------------
    CONTROLLER: CC  TERMINAL: 000                              TIME: 14:54:01
    FUNCTION: RCVE  LINE: X25LINE                              LINE ADDR: 03
    SEND/RCVE COUNT: 0/0                #BITS LAST BYTE: E0 ALL 8 BITS
    PACKET HEADER:   QBIT: 0     LOGICAL CHANNEL GROUP NUMBER: 0
              LOGICAL CHANNEL NUMBER: 00  PACKET TYPE IDENTIFIER: FB
                                  RESTART INDICATION:11111011
    RESTARTING CAUSE:   07              DIAGNOSTIC CODE:   87
-------------------------------------------------------------------------------
CONTROLLER: CC       TERMINAL:  000     TIME:  14:54:35
FUNCTION: XMIT       LINE:              LINE ADDR:   01
COMMAND:  31  RR     RCVE COUNT: 1      RETURN CODE: 0D FRAME TRANSMIT COMPLETE
-------------------------------------------------------------------------------
CONTROLLER: CC       TERMINAL:  000     TIME:  14:54:56
FUNCTION: XMIT       LINE:              LINE ADDR:   01
SEND/RCVE COUNT: 1/1                    RETURN CODE: 0D FRAME TRANSMIT COMPLETE
PACKET HEADER: QBIT: 0     LOGICAL CHANNEL GROUP NUMBER: 0
               LOGICAL CHANNEL NUMBER: 0A  PACKET TYPE IDENTIFIER: 0B
                                   CALL REQUEST:00001011
LENGTH OF CALLED ADDRESS: 09
CALLED DTE ADDR:    7 0 0 0 1 1 1 1 1
LENGTH OF CALLING ADDRESS: 09
CALLING DTE ADDR:   7 0 0 0 1 1 0 0 3
FACILITIES LENGTH: 00
DATA:     C3                              *.*
-------------------------------------------------------------------------------
CONTROLLER: CC       TERMINAL:  000     TIME:  14:54:56
FUNCTION: RCVE       LINE:              LINE ADDR:   01
COMMAND:  41  RR     RCVE COUNT: 2      #BITS LAST BYTE:  E0 ALL 8 BITS
-------------------------------------------------------------------------------
CONTROLLER: CC       TERMINAL:  000     TIME:  14:55:00
FUNCTION: RCVE       LINE:              LINE ADDR:   03
SEND/RCVE COUNT: 2/2                    #BITS LAST BYTE:  E0 ALL 8 BITS
PACKET HEADER: QBIT: 1     LOGICAL CHANNEL GROUP NUMBER: 0
               LOGICAL CHANNEL NUMBER: 0A  PACKET TYPE IDENTIFIER: 00
QLLC ADDRESS: FF           QLLC COMMAND: BF               QXID
```

Figure 7. Communications line trace report (X.25)

Loop status reports

This section contains examples of loop adapter status reports.

Store loop adapter status report

Figure 8 on page 401 is an example of the store loop adapter status report. The list below describes the various fields in the report.

1 The number of configured store loop adapters on the system.

2 The two-character node ID of the store controller and store loop adapter number where the report was generated.

3 The store loop adapter configuration.

4 The terminal number that was last used to select this store loop adapter.

5 For primary store loops, whether or not auto-resume is configured.

6 The store loop adapter status.

7 The date, time and terminal number of the last beaconing terminal received.

8 The last three system messages for this store loop adapter or for a terminal on the loop controlled by this store loop adapter.

```
                              LOOP STATUS                  Loop 1 of 4
Controller/Loop:  CC/1                  Configured:  Backup Loop

Select Terminal:  016           Status:  Backup Enabled

Last Beacon:  01/23 12:06 Terminal 028

------------------------------System Messages for this loop-------------------------

01/27 10:26 CC      2 W773 BACKUP EXIT REQUESTED
                                B5/S008/E041
01/27 10:26 CC      2 W772 OPEN LOOP - BEACONING
                                B4/S008/E040
01/27 10:26 CC      2 W761 LOOP IS OPERATIONAL
                                B5/S008/E039
--------------------------------End of Messages (Newest)----------------------------
```

Figure 8. Store Loop Adapter Status Report

Module level reports

There are six types of Module Level Reports.
1. Product Summary Report
2. Complete Module Level Report (Including Module Integrity)
3. Complete Module Level Report (Excluding Module Integrity)
4. Module Level Report (APAR Search)
5. Module Level Report (APAR Tracking)
6. Installed Features Report

The procedure for generating these reports is in “Requesting a module level report” on page 387. Reports 2 and 3 are identical. Module integrity indicates that a technique has been used to ensure that unauthorized changes have not been made to a module.

Report module level (summary)

Figure 9 on page 402 is an example of the Report Module Level Summary. The following list describes the various fields in the report.

1 The store where the report was generated.

2 The two-character node ID of the store controller where the report was generated.

3 The date the report was generated.

4 The name of the reported product.

5 PID – The product identification number.

6 CD – The Corrective Diskette number. This diskette may also be called the Preventive Maintenance Diskette or Patch Diskette.

7 Release – The Release Level of the product.

8 Base Level – The latest Base Level of the code, either a Release Level or a complete code Refresh Level.

9 Date Applied –
- For the maintenance level, this indicates the date the maintenance was transferred from diskettes or CD-ROM.
- For the current and backup levels, this indicates the date the maintenance was activated.

10 PTF – The PTF number of the latest Corrective Diskette.

```
   CSSAS002                  REPORT MODULE LEVEL
   Store 0123                Controller DD                       05/18/98
  Product = IBM 4690 OPERATING SYSTEM
----file name---|-----------current level-----------|----------backup level-----------
                |PID = 5696538                      |PID = 5696538
                |CD = 9900                          |CD = 9900
                |Release = 101                      |Release = 101
                |Base level = 9900                  |Base level = 9900
                |Date applied = 05/07/99 12:29      |Date applied = 10/30/98 10:33
                |PTF = -------                      |PTF = -------
                |Emergency Fix = -------            |Emergency Fix = -------
-------------------------------------------------------------------------------------
                |   PTF UR12345                     |   PTF UR12344
-------------------------------------------------------------------------------------
```

Figure 9. Report module level (summary)

Report module level (including or excluding module integrity)

Figure 10 on page 403 is an example of the report module level including or excluding module integrity. The following list describes the various fields in the report.

1 The store where the report was generated.

2 The two-character node ID of the store controller where the report was generated.

3 The date the report was generated.

4 The name of the reported product.

5 PID – The product identification number.

6 CD – The Corrective Diskette number. This diskette may also be called the Preventive Maintenance Diskette or Patch Diskette.

7 Release – The Release Level of the product.

8 Base Level – The latest Base Level of the code, either a Release Level or a complete code Refresh Level.

9 Date Applied –
- For the maintenance level, this indicates the date the maintenance was transferred from diskettes or CD-ROM.
- For the current and backup levels, this indicates the date the maintenance was activated.

10 Type – See “Interpreting the module level report” on page 388.

11 Cmd (Command) – See “Interpreting the module level report” on page 388.

12 Action – See “Interpreting the module level report” on page 388.

13 Errors – See “Interpreting the module level report” on page 388.

14 Name – The name of load module or data file.

```
   CSSAS002                   REPORT MODULE LEVEL
   Store 0123                 Controller DD                        05/18/98
  Product = IBM 4690 OPERATING SYSTEM
----file name---|-----------current level-----------|----------backup level-----------
                |PID = 5696538                      |PID = 5696538
                |CD = 9900                          |CD = 9900
                |Release = 101                      |Release = 101
                |Base level = 9900                  |Base level = 9900
                |Date applied = 05/07/99 12:29      |Date applied = 10/30/98 10:33
                |PTF = -------                      |PTF = -------
                |Emergency Fix = -------            |Emergency Fix = -------
                |                                   |
                | level type  cmd   action errors   | level type  cmd   action errors
-------------------------------------------------------------------------------------
   COMMAND.286  |sys replace apply        |sys replace apply
   ADXCT4SL.286 |sys replace apply        |sys replace apply
   ADXRT1SL.286 |sys replace apply        |sys replace apply
   ADXRT2SL.286 |sys   add   force        |
   ADXACRMF.DAT |sys replace apply        |sys replace apply
   ADXACROS.DAT |sys   add   force        |
   ADXCSBCS.DAT |sys replace apply        |
   ADXCSB0L.286 |sys replace apply        |
   ADXCSC0L.286 |sys replace apply        |sys replace apply
   ADXCSCAF.DAT |sys   add   force        |
   ADXDMCCF.DAT |sys   add   force        |
   ADXCSCCS.DAT |sys replace apply        |
   ADXCSCDF.DAT |sys   add   force        |
   ADXCSCDS.DAT |sys replace apply        |sys replace apply
   ADXCSCHF.DAT |sys   add   force        |
   ADXCSCHS.DAT |sys replace apply        |
   ADXCSCKF.DAT |sys   add   force        |
-------------------------------------------------------------------------------------
```

Figure 10. Report module level (including or excluding module integrity)

Report module level (APAR search)

Figure 11 on page 404 is an example of the Report Module Level for an APAR Search. The following list describes the various fields in the report.

1 The store where the report was generated.

2 The two-character node ID of the store controller where the report was generated.

3 The date the report was generated.

4 The name of the reported product.

5 PID – The product identification number.

6 CD – The Corrective Diskette number. This diskette may also be called the Preventive Maintenance Diskette or Patch Diskette.

7 Release – The Release Level of the product.

8 Base Level – The latest Base Level of the code, either a Release Level or a complete code Refresh Level.

9 Date Applied –
- For the maintenance level, this indicates the date the maintenance was transferred from diskettes or CD-ROM.
- For the current and backup levels, this indicates the date the maintenance was activated.

10 PTF – The PTF number of the latest Corrective Diskette.

11 The name of the load module or data file.

12 The seven character ID of the APAR.

```
    CSSAS002                   REPORT MODULE LEVEL
    Store 0123                 Controller DD                        05/18/98
   Product = IBM 4690 OPERATING SYSTEM
 ----file name---|-----------current level-----------|----------backup level-----------
                 |PID = 5696538                      |PID = 5696538
                 |CD = 9900                          |CD = 9900
                 |Release = 101                      |Release = 101
                 |Base level = 9900                  |Base level = 9900
                 |Date applied = 05/07/99 12:29      |Date applied = 10/30/98 10:33
                 |PTF = -------                      |PTF = -------
                 |Emergency Fix = -------            |Emergency Fix = -------
   ------------------------------------------------------------------------------------
                 |                                   | PTF UR20315
 IR74994         |                                   | ADXCT4SL.286
  -----------------------------------------------------------------------------------
```

Figure 11. Report module level (APAR search)

Report module level (APAR tracking)

Figure 12 on page 405 is an example of the report module level for APAR tracking. The following list describes the various fields in the report.

1 The store where the report was generated.

2 The two-character node ID of the store controller where the report was generated.

3 The date the report was generated.

4 The name of the reported product.

5 PID – The product identification number.

6 CD – The Corrective Diskette number. This diskette may also be called the Preventive Maintenance Diskette or Patch Diskette.

7 Release – The Release Level of the product.

8 Base Level – The latest Base Level of the code, either a Release Level or a complete code Refresh Level.

9 Date Applied –
- For the maintenance level, this indicates the date the maintenance was transferred from diskettes or CD-ROM.
- For the current and backup levels, this indicates the date the maintenance was activated.

10 PTF – The PTF number of the latest Corrective Diskette.

11 The name of the load module or data file.

12 The seven-character ID of the APAR.

```
CSSAS002                      REPORT MODULE LEVEL               Page 82 of 97
 Store 1                        Controller CC                        07/30/08
ADXJ2XPL - Java Unpacker started - Time = Wed 2008.07.30 18:52:20
-Error-|-File name-----------------------------------------------------------
Reading ZIP file 'adx_spgm:adxj2drf.dat'
Reading ZIP file 'adx_spgm:adxj2pgf.dat'
        | m:/java2/jre/bin/awt.dll
        | m:/java2/jre/bin/awt_g.dll
        | m:/java2/jre/bin/classic/core.dll
        | m:/java2/jre/bin/classic/core_g.dll
        | m:/java2/jre/bin/classic/jvm.dll
        | m:/java2/jre/bin/classic/jvm_g.dll
        | m:/java2/jre/bin/cmm.dll
        | m:/java2/jre/bin/cmm_g.dll
        | m:/java2/jre/bin/dbgmalloc.dll
        | m:/java2/jre/bin/dbgmalloc_g.dll
        | m:/java2/jre/bin/dcpr.dll
        | m:/java2/jre/bin/dcpr_g.dll
        | m:/java2/jre/bin/dt_socket.dll
        | m:/java2/jre/bin/dt_socket_g.dll

Press PgDn to continue.  Press PgUp for previous page.

 F1     F2     F3QUIT  F4      F5      F6      F7-10Pg F8+10Pg F9      F10
 Time=18:55   Current Window=1 Number of Windows=1   SYSTEM MESSAGE AVAILABLE
```

Figure 12. Report module level (APAR tracking)

Installed features report

Figure 13 on page 406 is an example of the report module level summary. The following list describes the various fields in the report.

1 The store where the report was generated.

2 The two-character node ID of the store controller where the report was generated.

3 The date the report was generated.

4 The features available with 4690.

5 The indication of purchased features.

6 The number of terminals connected to the controller shown.

7 The identification of the feature.

8 The identification of whether features have been purchased or are not valid.

```
                    Installed Features Report
  Store 0123                                        02/19/04
                           Controller DD
-----------------------------------------------------------------
Multiple Controller Feature (includes NetBIOS)          0
NetBIOS Feature                                         1
Communications Feature                                  1
Store Loop TCC Feature                                  0
LAN TCC Feature                                         0
Symbol S24 Wireless Adapter Feature                     0
-----------------------------------------------------------------
    0 = Feature has not been purchased.
    1 = Feature has been purchased.
    x = Invalid feature file.
```

Figure 13. Installed features report (page 1 of 2)

```
                    Installed Features Report
 Store 0123                                         02/19/04
           Number of Terminal Licenses
-------------------------------------------------------------------
5     4690 OS Version 4 Terminal Licenses


-------------------------------------------------------------------
    x = Invalid feature file.
```

Figure 14. Installed features report (page 2 of 2)

Performance reports

Examples of the performance reports for Hard Disk 1, the store controller processor, and the store loop 1 are shown in the following pages. Performance reports can also be generated for the diskette (floppy disk) drives, and for additional hard disk drives.

Refer to the *IBM 4690 OS: Programming Guide* for a discussion of Performance Monitoring. The percentage of utilization varies with the type of system that is being used.

Hard Disk 1 and floppy disk (diskette) performance

Figure 15 on page 407 is an example of the Hard Disk 1 performance report. The floppy disk report looks the same and has the same fields. The following list describes the various fields in the report.

1 The store where the performance data was gathered.

2 The date of the performance monitoring.

3 The time of the performance monitoring.

4 The duration of the collection period.

5 The number of physical reads to the device.

6 The number of physical writes to the device.

7 The percentage of device utilization.

```
                    HARD FILE 1 DISK PERFORMANCE

Store 0001
Date of monitoring:  03/30/94
Time of monitoring:  From: 10:36:00   To: 11:36:00


  The total data collection time was 60.0 minutes.


    Statistics for Disk performance

     009585 Physical READS

     011554 Physical WRITES

        26.0% DISK utilization
```

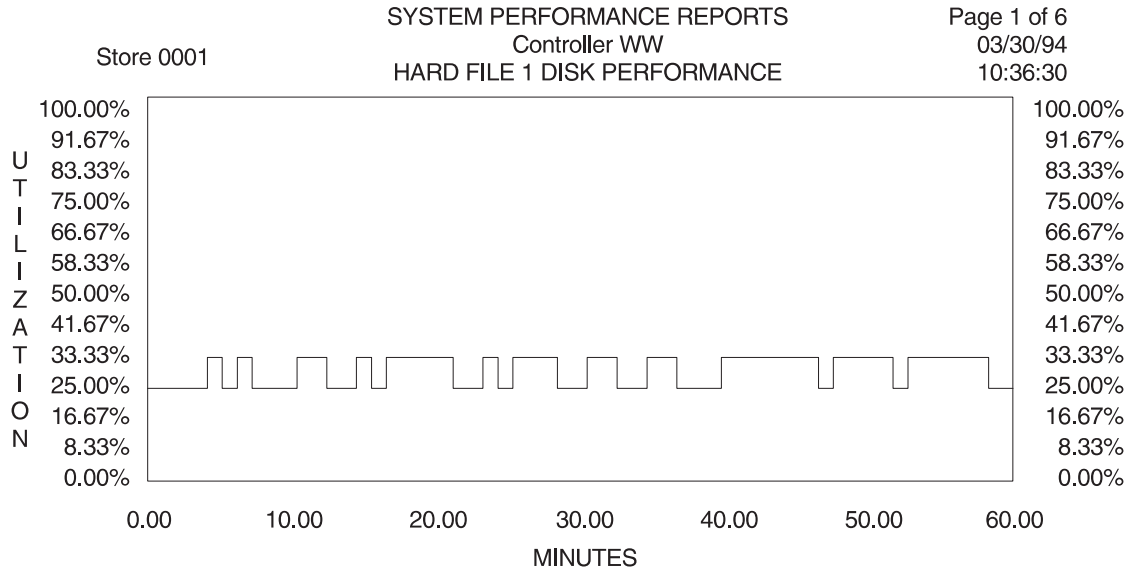


Figure 15. Hard Disk 1 performance

Store controller processor performance

Figure 16 on page 408 is an example of the store controller processor performance report. The following list describes the various fields in the report.

1 The store where the performance data was gathered.

2 The date of the performance monitoring.

3 The time of the performance monitoring.

4 The duration of the collection period.

5 The percentage of device utilization.

```
                    CONTROLLER PROCESSOR PERFORMANCE

Store 0001
Date of monitoring:  03/30/94
Time of monitoring:  From: 10:36:00   To: 11:36:00


  The total data collection time was 60.0 minutes.


    Statistics for Controller Processor performance

        50.0% Controller Processor utilization
```

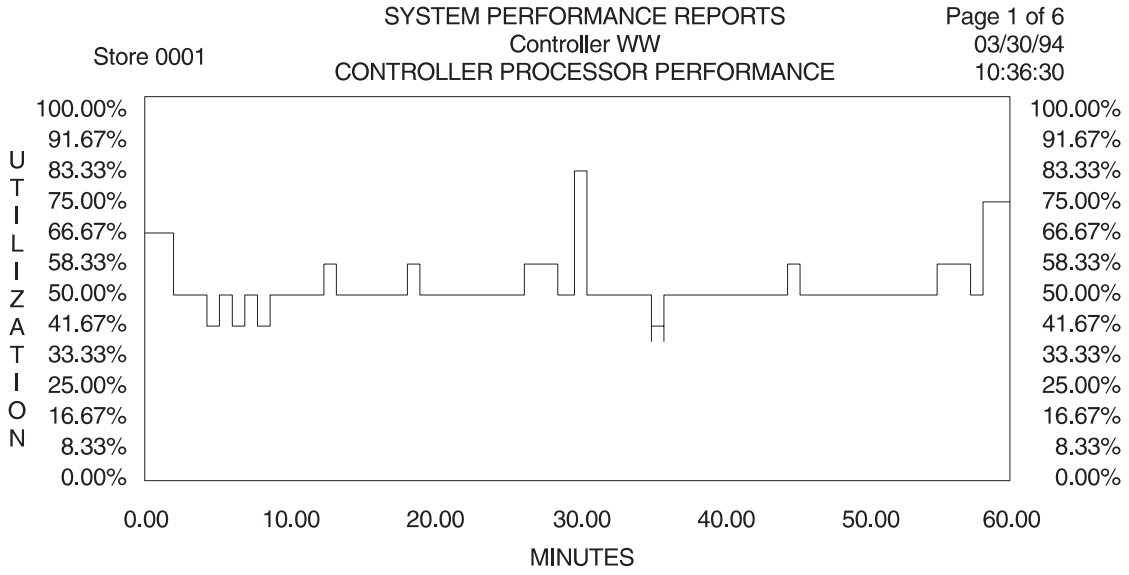


Figure 16. Store controller processor performance

Store loop 1 performance

Figure 17 on page 409 is an example of the Store Loop performance report. The following list describes the various fields in the report.

1 The store where the performance data was gathered.

2 The date of the performance monitoring.

3 The time of the performance monitoring.

4 The duration of the collection period.

5 The total number of messages sent by the store controller.

6 The average message length sent by the store controller.

7 The total number of messages received by the store controller.

8 The average message length received by the store controller.

9 The percentage of device utilization.

```
                          LOOP #1 PERFORMANCE

Store 0001
Date of monitoring:  03/30/94
Time of monitoring:  From: 10:36:00   To: 11:36:00


  The total data collection time was 60.0 minutes.


    Statistics for Loop traffic
      (...does not include data from unproductive polls)

     028069 Total messages SENT by controller
     000053 Average message length SENT by controller

     026314 Total messages RECEIVED by controller
     000083 Average message length RECEIVED by controller

        25.0% Loop utilization
```

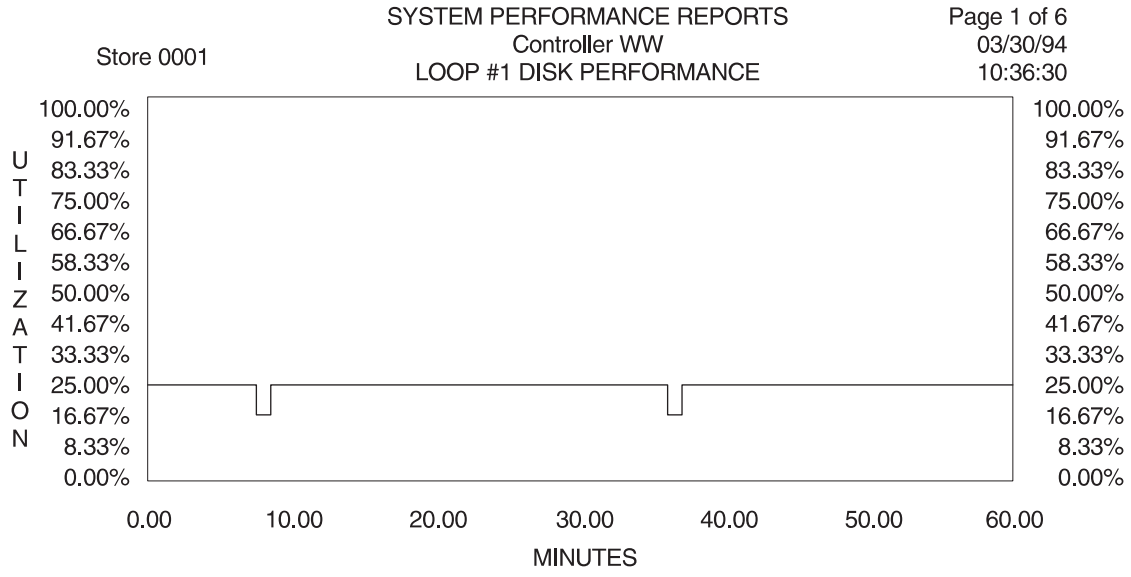


Figure 17. Loop #1 performance

Store controller storage dumps

An example of the store controller storage dump is shown below.

Store controller storage dump with ASCII/HEX formatting/store controller partial storage dump

Figure 18 on page 410 is an example of the store controller storage dump report with ASCII formatting and the store controller storage partial dump report. The following list describes the various fields in the dump.

1 The store controller or terminal where the dump occurred.

2 The store where the dump summary was formatted.

3 The date the dump was formatted.

4 DUMP DATE – The date the dump occurred.

5 DUMP TIME – The time the dump occurred.

6 ADDR – Dump address.

7 Offset.

8 ASCII – ASCII translation. A period denotes an unprintable ASCII character.

```
                STORAGE DUMP FOR CONTROLLER CC
CSLAC004                                                          PAGE 1
Store 0001    DUMP DATE: 03/25/94     DUMP TIME: 14:51:00     03/30/94


 ADDR     0     2     4     6     8     A     C     E       ASCII
------    ----  ----  ----  ----  ----  ----  ----  ----  ----------------
000000    aaaa  00f0  d01b  00f0  2305  009c  d01b  00f0  ........#.......
000010    d01b  00f0  54ff  00f0  d01b  00f0  d01b  00f0  ....T...........
000020    aefe  00f0  87e9  00f0  d01b  00f0  d01b  00f0  ................
000030    d01b  00f0  d01b  00f0  57ef  00f0  d01b  00f0  ........W.......
000040    65f0  00f0  4df8  00f0  41f8  00f0  122e  00f0  e...M...A.......
000050    39e7  00f0  59f8  00f0  2ee8  00f0  d2ef  00f0  9...Y...........
000060    7b12  00cc  f2e6  00f0  6efe  00f0  53ff  00f0  {.......n...S...
000070    53ff  00f0  a4f0  00f0  c7ef  00f0  0000  00f0  S...............
000080    d01b  00f0  d01b  00f0  d01b  00f0  d01b  00f0  ................
000090    d01b  00f0  d01b  00f0  d01b  00f0  d01b  00f0  ................
0000A0    d01b  00f0  d01b  00f0  d01b  00f0  d01b  00f0  ................
0000B0    d01b  00f0  d01b  00f0  d01b  00f0  d01b  00f0  ................
```

Figure 18. Store controller storage dump with ASCII/HEX formatting. This is also the format for the store controller partial storage dump

Storage dump summary

The following list describes the various fields in a terminal or store controller dump summary. If the information does appear here, make a note of it and provide it to IBM Software Support personnel.

1 PIDS – The product component ID number.

2 LVLS – The release level of the product (always 101)

3 MNTS – The base level of the operating system.

4 PTFS – The CD level of the operating system.

5 DEVS – The failing device.
- 4690POS = Store Controller
- 4683POS = 4683 Terminal
- 4693POS = 4693/4694 or SurePOS 300/700 Series Terminal

6 PRCS – The type of item having control at the abend. This could be System, Driver, Appl, or Runtimes.

7 RIDS – The name of the failing load module or driver name.

8 OPCS – A 1- or 2-byte hexadecimal value at the failing address.

9 HL – The cause of the dump.
- SSYSWBUG
- SPANIC*xxxx*
- STRAP*xxx*
- SKEYBOARD
- SNMI
- SOCF
- SAPPLTIMEOUT

- SARTIC0

Note: Additional hexadecimal data will be formatted in place of the *x* characters.

10 STA – SYSWBUG error data.

11 VALU – SYSWBUG error data.

12 PNS – Name of the routine or the resource diagnostic to error.

13 The store where the dump occurred.

14 The store controller or terminal where the dump occurred.

15 The date and time the dump occurred.

16 Identifies the type of store controller on which the dump occurred.

17 The operating system information is taken from the product control file and identifies the level of the operating system. A message appears if the product control file is not available.

18 Interrupt information.

19 Information about an operating system resource. This field is used by IBM Service Personnel for problem determination.

20 Stack dump shows the module and offset where the error occurred.

21 The contents of the registers. This field is used by IBM Service Personnel for problem determination.

22 System resource addresses. This field is used by IBM Service Personnel for problem determination.

23 Instructions given immediately before the error.

24 Process information identifies the tasks operating at the time the dump was initiated.

```
--------------------------------------------------------------------------------

  PIDS/569653801      LVLS/101         MNTS/9400           PTFS/9800.01
  DEVS/4693POS        PRCS/SYSTEM      RIDS/u06rt8gl
  HL/SSYSWBUG         STA/80901E50     VALU/H8090F00F
  PNS/dserv
--------------------------------------------------------------------------------
  Dump Reason: Syswbug.
    Syswbug - Terminal Printer

  Store 77    Terminal 1  ControllerID    Non-LAN
  Dump taken  19:18:00 5/05/1998   Model - IBM 4694
  ADXRT8GL.286   Cks 19211C    Jdate 9936551    Type S

  Interrupts enabled - Dispatching is OFF(1)

  CS = 0A30/FFFF  DS = 0A38/FFFF  ES = 0A40/6040  SS = 0A40/6040
  AX 00000A00  BX 000000d4  CX 00000000  DX 00000000  FS 0000
  SI 000007d6  DI 000007ae  SP 0000078a  BP 000007b0  GS 0000

  CR0 8000001b  CR1 00000000  CR2 00000000  CR3 0021c000

  The flag register 0206 indicates :
  - External maskable interrupts are enabled.
  - Carry flag is off.
  - Auxiliary Carry flag is off.
  - Parity flag is on.
  - Result of operation was non-zero.
  - Result of operation was positive value.
  - Direction flag is set for auto-increment.
  - System privilege level code running.

  Instructions leading up to error:
    49D7 =>push  bp
    49D8 =>mov   bp,sp
    49DA =>push  ds
    49DB =>xor   ax,ax
    49DD =>mov   fs,ax
    49DF =>mov   gs,ax
    49E1 =>sub   sp,0020
    49E4 =>mov   ax,ss
    49E6 =>mov   ds,ax
    49E8 =>mov   es,ax
    49EA =>lea   si,[bp+6]
    49ED =>mov   di,sp
    49EF =>mov   cx,10
    49F2 =>cld
    49F3 =>rep movsw
    49F5 =>mov   ax,A38
    49F8 =>mov   ds,ax
    49FA =>cmp   bh,00
    49FD =>je    4A0B
    49FF =>xor   bh,bh
```

Figure 19. Storage dump summary and symptom string information

```
  4A01 =>shl   bx,1
  4A03 =>shl   bx,1
  4A05 =>call far[bx-2B80]
  4A09 =>jmp   4A18
  4A0B =>shl   bx,1
  4A0D =>shl   bx,1
  4A0F =>cmp   bx,0014
  4A12 =>jb    4A1D
  4A14 =>call far[bx-2D84]
  4A18 =>mov   ds,[bp-2]        [0A40:07AE->1048]  <<< IFail

GDT summary:
  GDT base address           : 00151c00
  GDT Limit                  : 5fff
  Number of entries in GDT   : 3072
  Number of entries in use   : 250 (8%)

ASR summary:
  ASR table has 27 used entries of 200 (13% used).
  The number of ASR's waiting on an event: 27

Ospool has 26400 bytes used of 40960 (64% used).
3 most frequent users of OSPOOL are:
      79 entries are used by getadd+0115
      62 entries are used by getmem+01F3
      51 entries are used by flagget+0B
Kospool has 3632 bytes used of 26624 (13% used).
3 most frequent users of KOSPOOL are:
      53 entries are used by u06rt8gl+043B7+011
       3 entries are used by diskman+024
       0 entries are used by N/A

Pipes that are full or partially full:
 PIPENAME    DATA     SIZE   PROCESS     WRITE/READ
 --------    ----     ----   --------    -----------

5 most frequent users of FNUMs are:
 Process DISPATCHER opens ADXPII1P                     3 time(s)
 Process DISPATCHER opens ADXPIXAP                     2 time(s)
 Process mpostapl1  opens adxpit0                      1 time(s)
 Process mpostapl1  opens adxpir0                      1 time(s)
 Process mpostapl1  opens adxpip2                      1 time(s)

Summary of FNUMs assigned to pipes:
    Open 31    Empty 31    Full 0    Partially full 0

Process Summary:  6 entries
mpostapl1   (W)  PID 00000006    EVbits 00013FFF   Wait 00002000
    EVB  00001000  0010      - Type 7           - misman+0186
    EVB  00002000  0010 (W)  - Flag            -
    EVB  00000800  0010      - Type 7           - misman+0186
    EVB  00000400  0010      - Type 7           - misman+0186
    EVB  00000200  0010      - Type 7           - misman+0186
```

Figure 20. Storage dump summary and symptom string information (continued)

```
    EVB  00000100  0010      - Type 7           - misman+0186
    EVB  00000080  0010      - Type 7           - misman+0186
    EVB  00000040  0010      - Type 7           - misman+0186
    EVB  00000020  0010      - Type 7           - misman+0186
    EVB  00000010  0010      - Type 7           - misman+0186
    EVB  00000008  0010      - Type 7           - misman+0186
    EVB  00000004  0010      - Type 7           - misman+0186
    EVB  00000002  0010      - Type 7           - misman+0186
    EVB  00000001  0010      - Type 7           - misman+0186
    EVB  00010000  0010      - Type 7           - misman+0186

ADXAPPL    (W)   PID 00000005    EVbits 00000003    Wait 00000003
   EVB  00000001   0010 (W) - Pipe     Read     - ADXUPLQ
   EVB  00000002   0010 (W) - TermEv    Process - mpostapl1 - Pid 06

ADXTST1    (W)   PID 00000004    EVbits 0000001F    Wait 0000001F
   EVB  00000010   0010 (W) - Timer       6:06.18
   EVB  00000001   0010 (W) - Pipe     Read     - ADXTSTMP
   EVB  00000008   0010 (W) - Flag              -
   EVB  00000004   0010 (W) - Pipe     Read     - ADXTSTBP
   EVB  00000002   0010 (W) - Pipe     Read     - ADXTSTKP

ADXPII0R   (W)   PID 00000003    EVbits 00000001    Wait 00000001
   EVB  00000001   0010 (W) - Pipe     Read     - ADXPII1P

PoolTask   (W)   PID 00000002    EVbits 00000007    Wait 00000007
   EVB  00000002   0010 (W) - Flag              -
   EVB  00000001   0010 (W) - Flag              -
   EVB  00000004   0010 (W) - Flag              -

DISPATCHER (C)   PID 00000000    EVbits 00000001   Wait 00000000
   EVB  00000001   0013 (C) - Type 0            - a_wterm+011

End of Analysis
--------------------------------------------------------------------------------
```

Figure 21. Storage dump summary and symptom string information (continued)

Notes:

1. Descriptions of these areas should be researched in the *Intel APX 286 Programmer's Reference Manual*.
2. This information is not intended to be used by customers. It is to be provided to IBM by the user when it is needed for problem analysis.
3. The portion of the dump summary between the two lines at the top of the report is known as the symptom string. This section can sometimes be compared with earlier dumps to determine if the problem is a duplicate of an earlier problem.

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This appendix contains reference information about the store controller and the point-of-sale terminals.

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Store Controller

Use this section to find additional information about the store controller.

Displaying a Store Controller Message

When SYSTEM MESSAGE AVAILABLE appears in the lower right of the store controller display screen, there is a message available that has not been displayed.

You can use the following procedure at any time to see the ten most recent messages in the system message file. You can view all of the messages in the file by using the function keys described on the screen.

To display a system message at the store controller:

1. Sign on to the store controller using your store procedures.
2. Press **ALT+Sysreq**, then press **M**.
3. The System Messages are displayed on the screen. If a new message is received while you are looking at this screen, the new message is not displayed until you press one of the function keys.
4. Press **Quit** to return to the panel that was displayed when you pressed **ALT+Sysreq**.
5. Find the message in Chapter 2, “Messages,” on page 9.

Message Description

IBM 4680 BASIC Language Messages

The IBM 4680 BASIC Language can issue error messages while it is compiling and link editing. The following kinds of messages can be displayed:

- Compiler error messages
- Link86 error messages
- Runtime error messages
- Lib86 error messages
- STACK error messages

See the *IBM 4680 BASIC: Language Reference* for these messages.

Operating System Messages (Command Mode)

The operating system has functions other than those that support the sales environment. Access to these additional functions is through the Command Mode. Command Mode can be selected from the SYSTEM MAIN MENU. While in this mode it is possible to receive error messages. These error messages are also called SHELL messages.

The HELPLVL parameter for the DEFINE command lets you specify how much online information is displayed with the error message. If you are a beginning user, you can set your *help level* so the message contains detailed information to resolve the condition. If you are a more experienced user, you can set your help level to provide a briefer message.

Examples of the levels of help for a message are:

Help Level	Description Level
1	Displays the Command Mode function, the error source module, and the return code.
2	Identifies the command and type of error in one sentence. An example of a level 2 error message is: “COPY: Write error”

Help Level	Description Level
3	Expands on the level 2 message and includes more specific information. An example of a level 3 error message is: "COPY: An error occurred writing report.txt on A."
4	Expands on the level 3 message and often suggests a possible solution. An example of a level 3 error message is: "COPY: An error occurred writing report.txt on A. Disk A is full. You can erase unnecessary files to free up space".

See the *IBM 4690 OS: User's Guide* for selecting the level of help for error messages that occur in Command Mode.

Message General Format

The general format for messages displayed at the store controller:

```
mm/dd hh:mm cc ttt s annn xxxxxxxx...xxxxxxxx
                     Bx/Sxxx/Exxx xxxx...xxxx

Description:

  mm/dd    Month and Day the Message Was Logged

  hh:mm    Time of Day that the Message Was Logged

  cc       The Store Controller Identifier (ID)  Capital alphabetic,
           in the range of CC to ZZ, assigned by the controller load
           definition screen at configuration.

  ttt      Terminal Number  In decimal, from 000 to 999, if applicable.

  s        Message Severity Indicator  In decimal, from 1 to 5.

           Severity       Impact        Type of Error or Event

              1           System        Affects multiple terminals or
                                        the entire system.

              2           Unit          Affects a single physical unit
                                        such as a terminal or an input/
                                        output device.

              3           Function      Affects the normal operation
                                        of a programming function.

              4           Statistical   Indicates a statistical event/
                                        error has been detected or a
                                        sub-part of a programming
                                        function was affected.

              5           Events        Indicates an expected occurrence
                                        such as an initial program
                                        load (IPL).

  annn     The Message Identifier

           Annn   - IBM 4680 or 4680-4690 General Sales Application
           Bnnn   - IBM 4680 or 4680-4690 Supermarket Application
           Cnnn   - IBM 4680 Chain Drug Sales Application
           Tnnnn  - Hardware tests
```

Unnn - IPL
Wnnn - IBM 4690 OS Version 4 or later
Xnnn - Debug
Ynnn - System utilities
Znnn - Set terminal characteristics

xxx... Message Text

Bx System Log Section Indicator

B1 - Store controller hardware errors
B2 - Terminal hardware errors
B3 - Terminal events
B4 - Store controller events
B5 - System events
B6 - Application events

Sxxx The Source (Originator) of the Message

S001 - Controller Application
S002 - IPL Command Processor
S003 - SNMP
S004 - File Services
S005 - TCP/IP
S006 - X.25 Driver
S007 - DFM Feature
S008 - Store Controller First Store Loop Adapter
S009 - Store Controller Second Store Loop Adapter
S010 - Host ASYNC Driver
S012 - Common Communications
S013 - Communications & Systems Management
S014 - Host Command Processor (HCP)
S015 - SDLC Driver
S016 - SNA Driver
S017 - Shared I/O Access Method
S018 - Token Ring
S019 - TCP/IP
S020 - DDA
S021 - Token-Ring
S022 - LAN
S023 - Token-Ring Transporter
S024 - Console Systems
S025 - Ethernet
S028 - SCSI Device Driver
S029 - Optical Drive Utility
S030 - Store Controller IPL
S031 - Features Installation
S032 - Dump Formatter
S033 - Trace Formatter
S034 - System Log Scan
S035 - Performance Report
S036 - Start Trace/Performance
S037 - Problem Analysis Diskette
S038 - Report Module Level
S039 - Apply Software Maintenance
S040 - Input Sequence Table Utility
S041 - System Configuration Utility
S042 - Print Configuration Utility
S043 - Keyed File Utility
S044 - Display Alter Utility
S045 - Control File Build Utility
S046 - File Distribution Utility
S047 - Store Controller RAM Disk
S048 - Remote Command Processor (RCP)
S049 - Audible Alarm
S051 - Host Async - IBM ARTIC adapter
S052 - Communications Driver - IBM ARTIC adapter
S053 - Remote Change Management Server (RCMS)

S054 - Print Spooler
S055 - Streaming Tape Drive
S056 - Streaming Tape Drive Utility
S057 - File Compression/Decompression
S058 - 3270 Emulation in Store Controller
S059 - Remote System Function
S060 - Terminal Application
S064 - Application Loader
S068 - Debug
S069 - 3270 Emulation in the Terminal
S070 - I/O Processor
S072 - Terminal File Services
S074 - Terminal Services
S076 - Terminal Timer
S078 - Remote I/O Access Method
S079 - Remote I/O Access Method
S080 - Terminal Store Loop
S082 - Terminal Device Channel Adapter
S083 - Universal Serial Bus
S084 - Terminal IPL
S085 - Terminal Partial Dump
S086 - Set Terminal Characteristics
S087 - Remote Set Terminal Characteristics
S090 - Terminal Printer, 4689 Printer
S091 - Matrix Keyboard, USB 133-Key Keyboard or
       Modifiable Layout Keyboard with Card Reader
S092 - 50-Key Keyboard, USB 50-Key Keyboard
       Retail Point-of-Sale Keyboard,
       Retail Point-of-Sale Keyboard with Card Reader, or
       Retail Point-of-Sale Keyboard with Card Reader
       and Display, Keyboard-V, Keyboard-VI, 50-Key Keyboard with
       JUCC MSR
S093 - Alphanumeric Keyboard,
       ANPOS Keyboard, USB ANPOS Keyboard or
       Retail Point-of-Sale Alphanumeric Keyboard
       with Card Reader
S094 - Cash Drawer Adapter
S095 - Operator Display
S096 - Alphanumeric Display
S097 - Shopper Display
S098 - Video Display Adapter
S099 - Uninterruptable Power Supply (UPS)
S100 - Managers Keylock
S101 - Touch Screen or Pseudo Keyboard Driver
S102 - Optical Character Reader (OCR) Adapter,
       IBM 1520 Hand-Held Scanner Model A01 (1520-A01)
S104 - Point-of-Sale Scanner
S108 - Single-Track Magnetic Stripe Reader
S109 - Dual-Track Magnetic Stripe Reader
S110 - Scale Adapter
S112 - Coin Dispenser Adapter
S114 - Totals Retention
S116 - Terminal Keyboard Tone
S118 - Serial Port Adapter
S120 - Magnetic Wand Adapter
S122 - IBM 1520 Hand-Held Scanner Model A02 (1520-A02)
S124 - IBM 4685 Hand-Held Bar Code Reader Models 001 and 002
S125 - Terminal RAM Disk
S247 - Secure Shell (SSH)
S248 - Enhanced Password Driver
S249 - Preload Rebuild Utility
S250 - Terminal Preload Client
S251 - Terminal Preload Server (mtftpdpl)
S252 - System Information Server
S253 - Virtual File System (VFS) Server
S254 - TSS (Terminal Session Server

Exxx Event Code Defined in
Chapter 3, "System log descriptions," on page 197 for Each Source Code

Point-of-Sale Terminals

Use this section to find additional information about the terminals.

Device IDs for the 4683 Terminal

The following is a list of the terminal device IDs. The device IDs are used by STC (set terminal characteristics) to identify devices that are configured for or attached to a terminal. The device ID is also required when requesting a trace report of the device channel for a unique device.

4683 Device IDs by ID Number

Table 18 on page 420 shows the terminal device ID using the device ID number.

Table 18. 4683 Device IDs by ID Number

ID	Device	Socket Number
X'10'	Keyboard, 50-key or Combined Keyboard/Display	5A
X'11'	Keyboard, 50-key or Combined Keyboard/Display	5B
X'12'	Keyboard, Alphanumeric	5A
X'13'	Keyboard, Alphanumeric	5B
X'16'	Keyboard, Matrix	5A
X'17'	Keyboard, Matrix	5B
X'1A'	Keyboard, ANPOS	5A
X'1B'	Keyboard, ANPOS	5B
X'20'	Display, Alphanumeric	4A
X'21'	Display, Alphanumeric	4B
X'22'	Display, Operator or Combined Keyboard/Display	4A or 5A if Combined Keyboard/Display
X'23'	Display, Operator or Combined Keyboard/Display	4B or 5B if Combined Keyboard/Display
X'26'	Display, Shopper	4A
X'27'	Display, Shopper	4B
X'28'	Display, Video	81 on the Feature Adapter in location 2A
X'29'	Display, Video	81 on the Feature Adapter in location 2B
X'30'	Printer, Model 1 or Model 2	7
X'34'	Printer, Model 3 or model 4	7
X'36'	Printer, Model 2 Fiscal	7
X'38'	Printer, Model 3 Fiscal	7
X'40'	Single-Track MSR	6 on the keyboard attached to Socket 5A
X'41'	Single-Track MSR	6 on the keyboard attached to Socket 5B
X'44'	IBM 1520 Hand-Held Scanner Model A01 (1520-A01), Optical Character Reader (OCR)	21 on the Feature Adapter in location 2A
X'45'	IBM 1520 Hand-Held Scanner Model A01 (1520-A01), Optical Character Reader (OCR)	21 on the Feature Adapter in location 2B
X'46'	Dual-Track MSR as part of an integrated keyboard	5A
X'47'	Dual-Track MSR, alone, or as part of an integrated keyboard	5B

Table 18. 4683 Device IDs by ID Number (continued)

ID	Device	Socket Number
X'4A'	Point-of-Sale Scanner	17 (IBM 4687 Point-of-Sale Scanner Model 002, IBM 4696 Point-of-Sale Scanner Scale Model 001, and IBM 4698 Point-of-Sale Scanner Model 002 share socket as an integrated scanner and scale)
X'4B'	IBM 1520 Hand-Held Scanner Model A02 (1520-A02)	5B
	IBM 4685 Hand-Held Bar Code Reader Models 001 and 002	9B
	Non-IBM Hand-Held Scanner	9B
X'4C'	Magnetic Wand	26 on the Feature Adapter in location 2A
X'4D'	Magnetic Wand	26 on the Feature Adapter in location 2B
X'50'	Totals Retention	Internal to the base unit
X'54'	Cash Drawer	3A
X'54'	Cash Drawer	3B
X'60'	Coin Dispenser	29 on the Feature Adapter in location 2A
X'61'	Coin Dispenser	29 on the Feature Adapter in location 2B
X'64'	RS-232 Device	25 on the Feature Adapter in location 2A
X'65'	RS-232 Device	25 on the Feature Adapter in location 2B
X'68'	RS-232 Device	23 on the Feature Adapter in location 2A
X'69'	RS-232 Device	23 on the Feature Adapter in location 2B
X'6A'	Scale (Feature Expansion B or C only)	21 on the Feature Adapter in location 2A
X'6B'	Scale (Feature Expansion B or C only)	21 on the Feature Adapter in location 2B
X'6E'	Scale	17 (IBM 4687 Point-of-Sale Scanner Model 002, IBM 4696 Point-of-Sale Scanner Scale Model 001, and IBM 4698 Point-of-Sale Scanner Model 002 share socket as an integrated scanner and scale)

4683 Device IDs by Device Type

Table 19 on page 421 shows the terminal device IDs by the device type.

Table 19. 4683 Device IDs by Device Type

Device	Socket Number	ID
Cash Drawer	3A	X'54'
	3B	X'54'
Coin Dispenser	29 on the Feature Adapter in location 2A	X'60'
	29 on the Feature Adapter in location 2B	X'61'
Display, Alphanumeric	4A	X'20'
	4B	X'21'
Display, Operator or Combined Keyboard/Display	4A or 5A if Combined Keyboard/Display	X'22'
	4B or 5B if Combined Keyboard/Display	X'23'
Display, Shopper	4A	X'26'
	4B	X'27'

Table 19. 4683 Device IDs by Device Type (continued)

Device	Socket Number	ID
Display, Video	81 on the Feature Adapter in location 2A	X'28'
	81 on the Feature Adapter in location 2B	X'29'
IBM 1520 Hand-Held Scanner Model A01 (1520-A01)	21 on the Feature Adapter in location 2A	X'44'
	21 on the Feature Adapter in location 2B	X'45'
IBM 1520 Hand-Held Scanner Model A02 (1520-A02)	5B	X'4B'
IBM 4685 Hand-Held Bar Code Reader, Models 001 and 002.	9B	X'4B'
Keyboard, 50-key or Combined Keyboard/Display	5A	X'10'
	5B	X'11'
Keyboard, Alphanumeric	5A	X'12'
	5B	X'13'
Keyboard, ANPOS	5A	X'1A'
	5B	X'1B'
Keyboard, Matrix	5A	X'16'
	5B	X'17'
MSR, Dual-Track	5A when part of an integrated keyboard	X'46'
	5B alone or when part of an integrated keyboard	X'47'
MSR, Single-Track	6 on the keyboard attached to Socket 5A	X'40'
	6 on the keyboard attached to Socket 5B	X'41'
Magnetic Wand	26 on the Feature Adapter in location 2A	X'4C'
	26 on the Feature Adapter in location 2B	X'4D'
Non-IBM Hand-Held Scanner	9B	X'4B'
Optical Character Reader (OCR)	21 on the Feature Adapter in location 2A	X'44'
	21 on the Feature Adapter in location 2B	X'45'
Printer, Model 1 or Model 2	7	X'30'
Printer, Model 3 or Model 4	7	X'34'
Printer, Model 2 Fiscal	7	X'36'
Printer, Model 3 Fiscal	7	X'38'
RS-232 Device	25 on the Feature Adapter in location 2A	X'64'
RS-232 Device	25 on the Feature Adapter in location 2B	X'65'
RS-232 Device	23 on the Feature Adapter in location 2A	X'68'
RS-232 Device	23 on the Feature Adapter in location 2B	X'69'
Scale (Feature Expansion B or C only)	21 on the Feature Adapter in location 2A	X'6A'
Scale (Feature Expansion B or C only)	21 on the Feature Adapter in location 2B	X'6B'
Scale	17 (IBM 4687 Point-of-Sale Scanner Model 002, IBM 4696 Point-of-Sale Scanner Scale Model 001, and IBM 4698 Point-of-Sale Scanner Model 002 share socket as an integrated scanner and scale)	X'6E'

Table 19. 4683 Device IDs by Device Type (continued)

Device	Socket Number	ID
Totals Retention	Internal to the base unit	X'50'

Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal

The following is a list of the terminal device IDs. The device IDs are used by STC (set terminal characteristics) to identify devices that are configured for or attached to a terminal. The device ID is also required when requesting a trace report of the device channel for a unique device.

4693, 4694, or SurePOS 700 (RS-485) Device IDs by ID Number

Table 20 on page 423 lists the 4693, 4694, or SurePOS 700 (RS-485) terminal device IDs by the device ID number.

Table 20. 4693, 4694, or SurePOS 700 (RS-485) Device IDs by ID Number

ID	Device	Socket Number
X'10'	Keyboard, 50-key or Combined Keyboard/Display	5A
X'11'	Keyboard, 50-key or Combined Keyboard/Display	5B
X'12'	Keyboard, Alphanumeric	5A
X'13'	Keyboard, Alphanumeric	5B
X'16'	Keyboard, Matrix	5A
X'17'	Keyboard, Matrix	5B
X'19'	Keyboard, PLU POS	4A/4B on PLU Extension Box
X'1A'	Keyboard, ANPOS	5A
X'1B'	Keyboard, ANPOS	5B
X'1C'	Keyboard, Retail Point-of-Sale Keyboard, Retail Point-of-Sale with or without display Keyboard, Retail Alphanumeric Point-of-Sale (ANPOS) Keyboard, Retail Point-of-Sale Modifiable Layout	5A
X'1C'	Keyboard, Keyboard-V POS with JUCC MSR	5
X'1C'	Keyboard, Keyboard-VI POS with JUCC MSR	5
X'1C'	Keyboard, 50-Key Keyboard with JUCC MSR	5
X'1D'	Keyboard, Retail Point-of-Sale Keyboard, Retail Point-of-Sale with or without display Keyboard, Retail Alphanumeric Point-of-Sale (ANPOS) Keyboard, Retail Point-of-Sale Modifiable Layout	5B
X'20'	Display, Alphanumeric	4A
X'21'	Display, Alphanumeric	4B, 9A, 9B, 9C
X'22'	Display, Operator or Combined Keyboard/Display	4A or 5A if Combined Keyboard/Display, 9A, 9B, 9C
X'23'	Display, Operator or Combined Keyboard/Display	4B or 5B if Combined Keyboard/Display, 9A, 9B, 9C
X'24'	40-Character Liquid Crystal Display (LCD) 40-Character Vacuum Fluorescent Display II (VFD II) Two-sided VFD II	4A
X'25'	40-Character Liquid Crystal Display (LCD) 40-Character Vacuum Fluorescent Display II (VFD II) Two-sided VFD II	4B, 9A, 9B, 9C
X'2C'	APA Display	4A on PLU Extension Box

Table 20. 4693, 4694, or SurePOS 700 (RS-485) Device IDs by ID Number (continued)

ID	Device	Socket Number
X'2D'	APA Display	4B on PLU Extension Box
X'5C'	LCD/Video (touch screen enabled) (SurePoint™ Solution)	4 **Note:** On 4694, because there is no socket 4A or 4B, you can connect directly into socket 4, or as device 1 with the Y-connector plugged into socket 4.
X'5D'	LCD/Video (touch screen enabled) (SurePoint Solution)	4B, 9A, 9B, 9C, 9/E **Note:** For 4694s with only a 9/E socket, you can connect directly into socket 9/E, or as device 1, 2, or 3 with the Y-connector or W-connector plugged into socket 9/E, or as device 2 with the Y-connector plugged into socket 4.
X'26'	Display, Shopper	4A
X'27'	Display, Shopper	4B, 9A, 9B, 9C
X'2A'	APA Display	4/9
X'2B'	APA Display	4/9
X'30'	Printer, Model 1 or Model 2	7
X'32'	Printer, 4689	7
X'34'	Printer, Model 3, 4, or 4A	7
X'35'	Printer, 4610	7
X'36'	Printer, Model 2 Fiscal	7
X'37'	Printer, 4689	7
X'38'	Printer, Model 3 or 4 Fiscal	7
X'40'	Single-Track MSR	6 on the keyboard attached to Socket 5A
X'41'	Single-Track MSR	6 on the keyboard attached to Socket 5B
X'46'	Dual-Track MSR as part of an integrated keyboard	A
X'47'	Dual-Track MSR, alone, or as part of an integrated keyboard	5B
X'48'	Three-Track MSR attached to any Retail Point-of-Sale keyboard or as part of an integrated keyboard	5A
X'48'	JUCC MSR	5
X'49'	JUCC MSR	5
X'49'	Three-Track MSR attached to any Retail Point-of-Sale keyboard or as part of an integrated keyboard	5B
X'4A'	Point-of-Sale Scanner	9A (IBM 4687 Point-of-Sale Scanner Model 002, IBM 4696 Point-of-Sale Scanner Scale Model 001, and IBM 4698 Point-of-Sale Scanner Model 002 share socket as an integrated scanner and scale)
X'4B'	Non-IBM Hand-Held Scanner	9B
X'4B'	IBM 1520 Hand-Held Scanner Model A02 (1520-A02)	5B
X'4B'	IBM 4685 Hand-Held Bar Code Reader Models 001 and 002	9B
X'51'	Totals Retention	Internal to the base unit
X'54'	Cash Drawer	3A

Table 20. 4693, 4694, or SurePOS 700 (RS-485) Device IDs by ID Number (continued)

ID	Device	Socket Number
X'54'	Cash Drawer	3B
X'5C'	Touch Screen	4A
X'5D'	Touch Screen	4B, 9A, 9B, or 9C
X'64'	Non-IBM Device that Emulates 4683 Feature Card (RS-232 Device)	9A, 9B, 9C
X'65'	Non-IBM Device that Emulates 4683 Feature Card (RS-232 Device)	9A, 9B, 9C
X'68'	Non-IBM Device that Emulates 4683 Feature Card (RS-232 Device)	9A, 9B, 9C
X'69'	Non-IBM Device that Emulates 4683 Feature Card (RS-232 Device)	9A, 9B, 9C
X'6E'	Scale	9A (IBM 4687 Point-of-Sale Scanner Model 002, IBM 4696 Point-of-Sale Scanner Scale Model 001, and IBM 4698 Point-of-Sale Scanner Model 002 share socket as an integrated scanner and scale)
X'VGA port'	VGA Monitor	VGA port

4693, 4694, or SurePOS 700 (RS-485) Device IDs by Device Type

Table 21 on page 425 lists the 4693 or 4694 terminal device IDs by the terminal device type.

Table 21. 4693, 4694, or SurePOS 700 (RS-485) Device IDs by Device Type

Device	Socket Number	ID
40-Character Liquid Crystal Display (LCD)	4A	X'24'
	4B, 9A, 9B, 9C	X'25'
40-Character Vacuum Fluorescent Display II (VFD II)	4A	X'24'
	4B, 9A, 9B, 9C	X'25'
Cash Drawer	3A	X'54'
	3B	X'54'
Display, Alphanumeric	4A	X'20'
	4B, 9A, 9B, 9C	X'21'
Display, APA	4A, 4	X'2A'
	4B, 9A, 9B, 9C	X'2B'
	4A on PLU Extension Box	X'2C'
	4B on PLU Extension Box	X'2D'
Display, Operator or Combined Keyboard/Display	4A, 5A if Combined on a keyboard	X'22'
	4B, 5B if Combined on a keyboard, 9C	X'23'
Display, Shopper	4A	X'26'
	4B, 9A, 9B, 9C	X'27'
IBM 1520 Hand-Held Scanner Model A02 (1520-A02)	5B	X'4B'
IBM 4685 Hand-Held Bar Code Reader Models 001 and 002	9B	X'4B'
Keyboard, 4693 Alphanumeric Point-of-Sale (ANPOS)	5A	X'1C'

Table 21. 4693, 4694, or SurePOS 700 (RS-485) Device IDs by Device Type (continued)

Device	Socket Number	ID
	5B	X'1D'
Keyboard, 50-key or Combined Keyboard/Display	5A	X'10'
Keyboard, 50-Key Keyboard with JUCC MSR	5	X'1C'
	5B	X'11'
Keyboard, Alphanumeric	5A	X'12'
	5B	X'13'
Keyboard, ANPOS	5A	X'1A'
	5B	X'1B'
Keyboard, Keyboard-V POS	5	X'1C'
Keyboard, Keyboard-VI POS	5	X'1C'
Keyboard, PLU POS Keyboard	4A/4B on PLU Extension Box	X'19'
Keyboard, Matrix	5A	X'16'
	5B	X'17'
Keyboard, Modifiable Layout	5A	X'1C'
	5B	X'1D'
Keyboard, Retail Point-of-Sale	5A	X'1C'
	5B	X'1D'
LCD/Video (touch screen enabled) (SurePoint Solution)	4 **Note:** On 4694, because there is no socket 4A or 4B, you can connect directly into socket 4, or as device 1 with the Y-connector plugged into socket 4.	X'5C'
LCD/Video (touch screen enabled) (SurePoint Solution)	4B, 9A, 9B, 9C, 9/E **Note:** For 4694s with only a 9/E socket, you can connect directly into socket 9/E, or as device 1, 2, or 3 with the Y-connector or W-connector plugged into socket 9/E, or as device 2 with the Y-connector plugged into socket 4.	X'5D'
Monitor, VGA	VGA port	X'VGA port'
MSR, Dual-Track	5A when part of an integrated keyboard	X'46'
	5B, alone, or as part of an integrated keyboard	X'47'
MSR, Single-Track	6 on the keyboard attached to Socket 5A	X'40'
	6 on the keyboard attached to Socket 5B	X'41'
MSR, Three-Track	5A attached to a Retail Point-of-Sale Keyboard	X'48'
	5B attached to a Retail Point-of-Sale Keyboard	X'49'
MSR, JUCC	5	X'48'
	5	X'49'
Non-IBM Hand-Held Scanner	9B	X'4B'
Printer, Model 1 or Model 2	7	X'30'

Table 21. 4693, 4694, or SurePOS 700 (RS-485) Device IDs by Device Type (continued)

Device	Socket Number	ID
Printer, Model 3, 4, or 4A	7	X'34'
Printer, Model 2 Fiscal	7	X'36'
Printer, Model 3 or 4 Fiscal	7	X'38'
Printer, 4610	7	X'35'
Printer, 4689-3G1	7	X'32'
Printer, 4689-002	7	X'37'
Scale	9A (IBM 4687 Point-of-Sale Scanner Model 002, IBM 4696 Point-of-Sale Scanner Scale Model 001, and IBM 4698 Point-of-Sale Scanner Model 002 share socket as an integrated scanner and scale)	X'6E'
Point-of-Sale Scanner	9A (IBM 4687 Point-of-Sale Scanner Model 002, IBM 4696 Point-of-Sale Scanner Scale Model 001, and IBM 4698 Point-of-Sale Scanner Model 002 share socket as an integrated scanner and scale)	X'4A'
Totals Retention	Internal to the base unit	X'51'
Touch Screen	4A	X'5C'
Touch Screen	4B, 9A, 9B, or 9C	X'5D'
Two-sided VFD II	4A 4B, 9A, 9B, 9C	X'24' X'25'

Device IDs for USB devices attached to SurePOS 300/700 Series terminal

The following is a list of the terminal device IDs. The device IDs are used to identify devices that are attached to a terminal. The device ID is also required when requesting a trace report of the device channel for a unique device.

SurePOS 300/700 Series (USB) device IDs by ID number

Table 22 on page 427 lists the SurePOS 300/700 Series terminal device IDs by the device ID number.

Table 22. SurePOS 300/700 Series device IDs by ID number

ID	Device
X'1C'	USB Keyboard, USB 50-Key Keyboard with or without display, USB ANPOS Keyboard, USB 133-Key Keyboard
	USB Modular 67-key keyboard
	USB Modular Anpos keyboard
	PS/2 Modular Anpos keyboard
X'2A'	APA Display
X'22'	Display in Combined Keyboard/Display
X'23'	Display in Combined Keyboard/Display
X'24'	40-Character Vacuum Fluorescent Display (VFD)
X'25'	40-Character Vacuum Fluorescent Display (VFD)
X'26'	40-Character Liquid Crystal Display (LCD)

Table 22. SurePOS 300/700 Series device IDs by ID number (continued)

ID	Device
X'27'	40-Character Liquid Crystal Display (LCD)
X'34'	Printer, 4610 in Mod4 emulation mode
X'35'	Printer, 4610
X'48'	Three-Track MSR attached to any Retail Point-of-Sale keyboard or as part of an integrated keyboard
X'4A'	Point-of-Sale Scanner
X'4B'	Hand-Held Scanner
X'50'	Totals Retention
X'54'	Cash Drawer
X'6E'	Scale

SurePOS 300/700 Series (USB) Device IDs by Device Type

Table 23 on page 428 lists the SurePOS 300/700 Series terminal device IDs by the terminal device type.

Table 23. SurePOS 300/700 Series Device IDs by Device Type

Device	ID
40-Character Liquid Crystal Display (LCD)	X'26'
	X'27'
40-Character Vacuum Fluorescent Display (VFD)	X'24'
	X'25'
APA Display	X'2A'
Cash Drawer	X'54'
Display or Combined Keyboard/Display	X'22'
	X'23'
Keyboard, USB 50-Key Keyboard, USB ANPOS, USB 133-Key Keyboard, Modular 67-Key keyboard, Modular ANPOS Keyboard	X'1C'
MSR, Three-Track	X'48'
Hand-Held Scanner	X'4B'
Printer, 4610 in Mod4 emulation mode	X'34'
Printer, 4610	X'35'
Scale	X'6E'
Point-of-Sale Scanner	X'4A'
Totals Retention	X'50'

Displaying the Terminal Configuration Using STC

STC is an abbreviation for Set Terminal Characteristics. For the Mod2 terminal, see “Displaying the Mod2 Terminal Configuration” on page 429.

Note: This STC function is not available on SurePOS 300 and SurePOS 700 Series systems.

Displaying the IBM Point-of-Sale Terminal Configuration

1. Press and hold the dump switch on the point-of-sale terminal.
2. Power Off the terminal base unit or system unit and then release the dump switch.
3. Wait 5 seconds, and then switch power On.

4. Wait for message U005 to display.
5. Press and release the dump switch.

   This causes the terminal to ignore its current terminal number and prompt for a new terminal number by displaying message Z001.
6. Wait for message Z001 to display.

   If you have more than one display attached to the terminal, the Z*xxx* messages are displayed on the system display. See “Entering Terminal Numbers” in the *IBM 4690 OS: User's Guide* for a description of the *default system display*.
7. Key in the current terminal number 1*xxx* (xxx = a number from 001 to 999), and then press **S2**. Do not key in a new terminal number.
8. When message Z010 displays, press **S2**.

   Messages Z*xxx* appears. The text associated with these messages indicates a device is configured or attached. For a list of terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.
9. Press **S2** after each message in this range appears.
   - If a socket has no device configured or attached, its message does not appear.
   - An error message may appear when you IPL the terminal if a socket has a device configured but not attached.
10. When message Z025 displays, press **S2**.
11. When message Z012 displays, this indicates the operation is complete.
    - If an error was discovered:
      – The configuration must be corrected at the store controller. See the *IBM 4690 OS: Planning, Installation, and Configuration Guide* to correct the configuration.

        – or –
      – The correct device must be connected to the correct socket at the terminal.
12. Press **S2**.
13. If customer setup (CSU) has never been run, it automatically loads and starts.
14. If CSU has been run, the initial terminal application is loaded.

Displaying the Mod2 Terminal Configuration

Note: This procedure assumes that the Mod2 terminal is up and running at the time the request is made. When “Displaying the IBM Point-of-Sale Terminal Configuration” on page 428 is performed, the Mod2 terminal automatically displays message Z001.

1. Key in **S1, 7, 1, S2**.
2. Wait approximately one minute for message Z002 to display.

   If you have more than one display attached to the terminal, the Z*xxx* messages appear on the *system* display. Refer to the *IBM 4690 OS: User's Guide* for a description of the default system display.
3. Key in the current terminal number 1*xxx* (xxx = a number from 001 to 999), and then press **S2**. Do not key in a new terminal number.

   If the terminal number you keyed in does not equal the current Mod2 terminal number, message Z004 displays. If this message appears, ensure that you are entering the correct terminal number.
4. When message Z010 displays, press **S2**.

   Messages in the range of Z014 through Z024 are displayed. The text associated with these messages indicates the socket number and whether a device is configured or attached to that

socket. For a list of terminal device IDs, see “Device IDs for the 4683 Terminal” on page 420 or “Device IDs for the 4693 or 4694 Terminal and for RS-485 devices attached to SurePOS 700 Terminal” on page 423.

5. Press **S2** after each message in this range appears.
   - If a socket has no device configured or attached, its message does not appear.
   - An error message may appear when you IPL the terminal, if a socket has a device configured but not attached.
6. When message Z025 displays, press **S2**.
7. When message Z012 displays, this indicates the operation is complete.
   - If an error was discovered:
     – The configuration must be corrected at the store controller. See the *IBM 4690 OS: Planning, Installation, and Configuration Guide* to correct the configuration.

     – or –
     – The correct device must be connected to the correct socket at the terminal.
8. Press **S2**.
9. If customer setup (CSU) has never been run, it automatically loads and starts.
10. If CSU has been run, the initial terminal application is loaded.

Displaying a Terminal Message

The lights on the keyboard (shown in Figure 22 on page 430) provide status information about the system. When one of these lights comes on, the system is sending a message to the terminal system display. The types of terminal messages are:

- A Wait message. See “Displaying a Wait Message” on page 430.
- An Offline message. See “Displaying an Offline Message” on page 431.
- A System message. See “Displaying a System Message” on page 431.

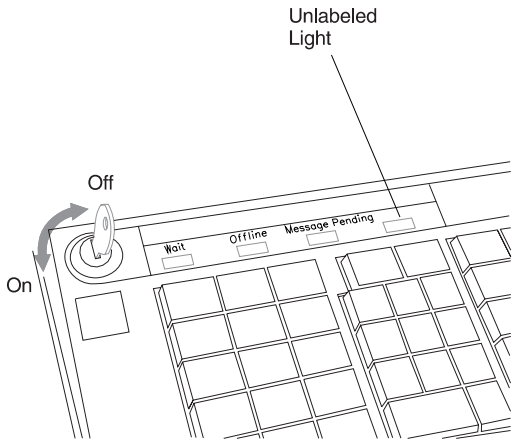


Figure 22. 50-key Keyboard Lights

Displaying a Wait Message

When the keyboard Wait light comes on, the application running on the terminal is waiting for some action to be completed (for example, waiting for a program to load). Only system function requests are accepted from the keyboard. A message related to the wait condition can be displayed.

- If you display the message when the Wait light is on, the message indicates the reason for the current wait condition.

- If you display the message when the Wait light is off, the message indicates the reason for a previous wait condition.

1. Key in **S1, 1, S2**.
2. The Wait message appears on the terminal system display.

   Example of a Wait message:

   ```
   W321 PROCESSING...
   WAIT FOR PROMPT
   ```

3. Find the message in Chapter 2, “Messages,” on page 9.
4. To clear the message, press **Clear**.

Displaying an Offline Message

When the keyboard Offline light comes on, normal system communications have been interrupted and the terminal is offline (not communicating with the store controller). You can display a message related to the offline condition by using a system function request.

- If you display the message when the Offline light is on, the message indicates the reason for the current offline condition.
- If you display the message when the Offline light is off, the message indicates the reason for a previous offline condition.

1. Key in **S1, 2, S2**.
2. The Offline message appears on the terminal system display.

   Example of an Offline message:

   ```
   W004 CONTROLLER DOES
   NOT RESPOND
   ```

3. Find the message in Chapter 2, “Messages,” on page 9.
4. To clear the message, press **Clear**.

Displaying a System Message

The terminal receives numerous messages from the system such as:

- Prompting messages
- Information messages
- Status messages

The terminal keeps the last five system messages that were received. When you display the system messages, the most current message displays first and the least current message displays last. The least current message is deleted if a new message increases the number of messages beyond five. You can display these messages when:

- The Message Pending light is off. See “Displaying a System Message (Message Pending Light is Off)” on page 431.
- The Message Pending light is on. See “Displaying a System Message (Message Pending Light is On)” on page 432.

Displaying a System Message (Message Pending Light is Off)

If the Message Pending light is off when you display a message, the message you see is the last message that the terminal has queued. You can continue displaying the messages by repeating the keying sequence until message W204 appears. W204 indicates that you have seen all the messages that the terminal has queued.

If you continue displaying messages beyond this point, the display sequence starts over. The most current message appears again, and then the remainder of the queued messages appear again.

1. Key in **S1, 3, S2**.
2. The system message appears on the terminal system display.

   Example of a system message:

```
W008 PROGRAM IS
BEING LOADED
```

3. Find the message in Chapter 2, “Messages,” on page 9.
4. To clear the message, press **Clear**.

Displaying a System Message (Message Pending Light is On)

When the Message Pending light comes on, the terminal has received a message that you have not seen. The light stays on until you display the message.

If you display the message when the light is on, this is the most current message. More messages can be waiting to be displayed. You can display these messages, by repeating the keying sequence until message W204 is displayed. This indicates that you have seen all the messages that the terminal has queued.

If you continue displaying messages beyond this point the display sequence starts over. The most current message appears again, and then the remainder of the queued messages appear again.

1. Key in **S1, 3, S2**.
2. The system message appears on the terminal system display.

   Example of a system message:

   ```
   W008 PROGRAM IS
   BEING LOADED
   ```

3. Find the message in Chapter 2, “Messages,” on page 9.
4. To clear the message, press **Clear**.

4694 and SurePOS 300/700 RPL Messages

The 4694 and SurePOS 300/700 terminals display message codes on a 2x20-attached display during the RPL process. (Normal text messages will continue to be displayed on an attached CRT.) These message codes have prefixes and suffixes with the following meanings. For additional information, refer to your 4694 or SurePOS manuals.

Prefix	**Meaning**
N2	- NW 802.2
N3	- NW 802.3
NE	- NW Ethernet II
RP	- RPL
BP	- Bootp
DH	- DHCP
PX	- PXE
Suffix	**Meaning**
1	- Searching
2	- Connected to server
3$	- Connected failed
4	- Downloading image for server
5$	- Error downloading from server
6	- Transferring control to boot code in image
7$	- Error opening file (NetWare)
8	- Found server (NetWare)

Displaying the Terminal Number

The first time a terminal is powered On, there is no terminal number stored in the totals retention (hard totals) storage of the terminal.

The initial terminal application load uses a default terminal number. During STC (set terminal characteristics), the terminal number is keyed in by the operator and stored in totals retention storage. This terminal number is permanently assigned to the terminal unless it is reset or changed by STC.

To display the terminal number:

1. Key in **S1, 7, S2**.
2. Message W012 containing the terminal number appears on the system display.
   To exit:
   – Press **S2** if you are in Test Mode.
   – Press **Clear** if you are not in Test Mode.

Changing the Terminal Number

On SurePOS 300/700 Series Terminals

After the terminal number has been entered, there are times when you want to change it.

Note: You can display the current terminal number by keying in **S1, 7, S2**. Press **Clear** to exit.

1. Key in **S1, 7, 1, S2**.
2. Wait approximately one minute for message Z002 to display.

   If you have more than one display attached to the terminal, the Z*xxx* messages appear on the system display. Refer to the *IBM 4690 OS: User's Guide* for a description of the default system display.
3. Key in the new terminal number 1*xxx* (*xxx* = a number from 001 to 999), and then press **S2**.
4. When message Z012 displays, the operation is complete.
5. The terminal operating system is loaded.
6. If Customer Setup (CSU) has never been run, it automatically loads and starts. If it has been run, the initial terminal application is loaded.

For more information on changing the terminal number, refer to the *IBM 4690 OS: User's Guide*.

On 4683, 4693, and 4694 Terminals

After the terminal number has been entered, there are times when you want to change it.

Note: You can display the current terminal number by keying in **S1, 7, S2**. Press **Clear** to exit.

1. Key in **S1, 7, 1, S2**.
2. Wait approximately one minute for message Z002 to display.

   If you have more than one display attached to the terminal, the Z*xxx* messages appear on the system display. Refer to the *IBM 4690 OS: User's Guide* for a description of the default system display.
3. Key in the new terminal number 1*xxx* (*xxx* = a number from 001 to 999), and then press **S2**.
4. If the terminal is a Mod1, continue at step 6 on page 433.
5. If the terminal is a Mod2, message Z004 displays. Power Off the Mod2 terminal and continue at “Entering the Terminal Number” on page 434.
6. When message Z010 appears, press **S2**.
7. Watch your display for a series of messages.
8. Press **S2** to view each message.
9. When message Z012 displays, press **S2**. This indicates the operation is complete.
10. The terminal operating system is loaded.
11. If Customer Setup (CSU) has never been run, it automatically loads and starts. If it has been run, the initial terminal application is loaded.

For more information on changing the terminal number, refer to the *IBM 4690 OS: User's Guide*.

Entering the Terminal Number

On SurePOS 300/700 Series Terminals

The terminal number must be entered before the terminal can operate. If the number has never been entered, message Z001 displays after the terminal has loaded. For more information on entering the terminal number, refer to the *IBM 4690 OS: User's Guide*.

This procedure is used when the terminal number has not been entered previously.

1. power On the terminal base unit.
2. Wait for message Z001 to display.

   If you have more than one display attached to the terminal, the Z*xxx* messages appear on the system display. Refer to the *IBM 4690 OS: User's Guide* for a description of the default system display.
3. Key in the terminal number 1*xxx* (*xxx* = a number from 001 to 999)
4. Press **S2**.
5. Message Z012 displays.
6. The terminal begins its power-on sequence.
7. If Customer Setup (CSU) has never been run, it automatically loads and starts. If CSU has been run, the initial terminal application is loaded.

On 4683, 4693, and 4694 Terminals

The terminal number must be entered before the terminal can operate. If the number has never been entered, message Z001 displays after the terminal has loaded. For more information on entering the terminal number, refer to the *IBM 4690 OS: User's Guide*.

This procedure is used when the terminal number has not been entered previously.

1. power On the terminal base unit.
2. Wait for message Z001 to display.

   If you have more than one display attached to the terminal, the Z*xxx* messages appear on the system display. Refer to the *IBM 4690 OS: User's Guide* for a description of the default system display.
3. Key in the terminal number 1*xxx* (*xxx* = a number from 001 to 999)

   If the terminal is a Mod2, the terminal number must be specified in the configuration record of the partner terminal.
4. Press **S2**.
5. Message Z010 is displayed.
6. Press **S2** and watch your display for a series of messages.
7. Press **S2** to view each message.
8. At the end of the series, message Z012 is displayed.
9. Press **S2**.
10. The terminal operating system loads if the terminal is a Mod1.
11. If Customer Setup (CSU) has never been run, it automatically loads and starts. If CSU has been run, the initial terminal application is loaded.

Resetting the Terminal Number to Zero

For more information on resetting the terminal number to zero, refer to the *IBM 4690 OS: User's Guide*.

1. Key in **S1, 7, 1, S2**.
2. Wait approximately one minute for message Z002 to display.
3. Key in 1000, and then press **S2**.
4. If the terminal is a SurePOS 300/700 Series, message Z012 is displayed.
5. If the terminal is a Mod1, continue at step 7 on page 435.

6. If the terminal is a Mod2, message Z004 is displayed. The terminal number is now reset to 000. Power Off the Mod2 base unit.
7. The terminal number is now reset to 000.
8. The display clears.
9. The terminal starts the load process and U001 through U007 is displayed.
   - If the terminal is to be removed from the store loop, switch the power Off at the base unit. The terminal number remains reset to 000 until a new number is entered.
   - If another terminal number is to be entered, continue at “Entering the Terminal Number” on page 434.

Formatting the Terminal Hard Disk Drive

On SurePOS 300/700 Series Terminals

This procedure is used to format the hard disk drive in the terminal. To format the hard disk drive:

1. Key in **S1, 7, 1, S2**
2. Key in **2, 2, 2, 2** and press **S2**.
3. Message Z041 appears.

   Note: If you are entering a new terminal number or changing an existing terminal number and your terminal has a hard disk drive attached, the option to format the hard disk drive is automatically displayed.
4. Press **S1**.

   When the formatting is complete, the format complete message (Z044) appears.
5. Press **S2** and your terminal begins a power on sequence.
6. Observe your terminal display while your terminal goes through the power on sequence. During this sequence, a series of messages appears at your display.

On 4683, 4693, and 4694 Terminals

This procedure is used to format the hard disk drive in the terminal. Before formatting the hard disk drive, you must make sure that the application on the Mod2 terminal is canceled or stopped. To format the hard disk drive:

1. Key in **S1, 7, 1, S2**
2. Key in **2, 2, 2, 2** and press **S2**.
3. Wait for message Z010 to display.
4. Press **S2** until message Z041 appears.

   Note: If you are entering a new terminal number or changing an existing terminal number and your terminal has a hard disk drive attached, the option to format the hard disk drive is automatically displayed during the view configuration option.
5. Press **S1**.

   When the formatting is complete, the format complete message (Z044) appears.
6. Press **S2** until a message informs you that configuration is complete.
7. Press **S2** and your terminal begins a power on sequence.
8. Observe your terminal display while your terminal goes through the power on sequence. During this sequence, a series of messages appears at your display.

Testing DBCS Devices

This procedure is used to test specific DBCS devices, including the APA display, the Keyboard-V, Keyboard-VI, PLU POS Keyboard, the JUCC MSR, the 4689-002 printer, and the 4689-3G1 printer. To begin the procedure:

1. Ensure the point-of-sale terminal is powered On and ready to run the test.
2. Press **S1**, type **8**, type **5**, and press **S2** to enter Test Mode.
3. Message W008 PROGRAM IS BEING LOADED is displayed.
4. Message T0010 ENTER TEST REQUEST is displayed. This indicates that the point-of-sale terminal is in Test Mode.

Table 24 shows an alphabetical summary of test procedures that are used to verify the correct operation of DBCS-enabled, point-of-sale terminal devices and features.

Table 24. Test Procedure Summary for DBCS Devices

Device to be Tested	When T0010 displays:	Comments
APA Display	Type **21** and press **S2**.	A pattern of double vertical bars shifts across the display. A pattern of double horizontal bars shifts down the display. Type **1** and press **S2** to RESTART the test. Type **0** and press **S2** to STOP the test.
Keyboard-V	Type **51** and press **S2**.	The keyboard tone test runs continuously until you press **S2** at the prompt. The keyboard lights test runs continuously until you press **S2** at the prompt. The keyboard key test is started, which allows a visual check of each key. Type **1** and press **S2** to RESTART the test. Type **0** and press **S2** to STOP the test.
Keyboard-VI	Type **52** and press **S2**.	The keyboard tone test runs continuously until you press **S2** at the prompt. The keyboard lights test runs continuously until you press **S2** at the prompt. The keyboard key test is started, which allows a visual check of each key. Type **1** and press **S2** to RESTART the test. Type **0** and press **S2** to STOP the test.
PLU POS Keyboard	Type **53** and press **S2**.	The keyboard tone test runs continuously until you press **S2** at the prompt. The keyboard lights test runs continuously until you press **S2** at the prompt. The keyboard key test is started, which allows a visual check of each key. Type **1** and press **S2** to RESTART the test. Type **0** and press **S2** to STOP the test.
JUCC MSR	Type **61** and press **S2**.	Slide the IBM-supplied test card through the JUCC MSR. Type **1** and press **S2** to RESTART the test. Type **0** and press **S2** to STOP the test.

Table 24. Test Procedure Summary for DBCS Devices (continued)

Device to be Tested	When T0010 displays:	Comments
Printer (4689-002, 4689-3G1)	Type **71** and press **S2**.	Press **S2** to stop printing at the journal or customer receipt station. Type **1** and press **S2** to RESTART the test. Type **0** and press **S2** to STOP the test.

To exit Test Mode:
1. When message T0010 displays, type **99** and press **S2** to exit Test Mode.
2. Message T0014 LEAVING TEST MODE is displayed.
3. Message W008 PROGRAM IS BEING LOADED is displayed.
4. The first message of the store application is displayed.

Initial Program Load (IPL)

Description of an IPL

An initial program load (IPL) is a group of program and data components that are loaded into the terminal read/write random access storage (RAM).

An IPL contains three major components:
- The System Code
- The Input/Output (I/O) Driver Code
- The Application Code

These components are selected by the user to make the hardware perform the tasks needed by the terminal operator.

The *system code* is loaded at power-on time by code that resides in the read-only storage (ROS). The system code defines and controls the tasks requested by the application program.

For the 4693, 4694, or SurePOS 300/700 Series terminal operating in the remote terminal environment, the system code has two stages. The 4683 terminal has only one. A second stage loader (bootstrap) is loaded from the controller when you power On the terminal. This second stage loader gives the terminal the intelligence to determine whether the Reference Diskette or the operating system should be loaded.

If the second stage loader loads the Reference Diskette, the Reference Diskette runs the terminal resets and starts the IPL sequence over. If the terminal does not need the Reference Diskette, the second stage loader loads the operating system and gives it control. Once the operating system has control, the IPL is identical on both machines.

The *I/O driver code* controls the I/O devices that are attached to the terminal. This code is selected by the user. A permanent record of which I/O code to load is kept in the system area of the NVRAM. This code is loaded by the system code.

The *application code* establishes the procedures that the operator uses to do a job. The application program components do this by assigning tasks to the hardware and to the operator in an ordered structure. These components also supervise the interaction and information exchange between the operator tasks and the hardware tasks. This code is also loaded by the system code.

The terminal needs the system, I/O driver, and application code immediately after the power-on self-tests (POSTs) have run successfully. If storage retention was enabled (Mod1 terminal only), the storage

contents are saved when the terminal is powered Off. Therefore, RAM is kept active by either the battery or the wall power and no IPL is needed. If storage retention was not enabled, the terminal needs an IPL when the terminal is powered On.

Source of an IPL

All system, I/O driver, and application components reside in the store controller. When the terminal needs an IPL, it requests one through the store loop or LAN to the store controller. The store controller then transmits the system code to the terminal.

In an 4690 Store System, the Mod2 terminal gets its IPL from the Mod1 terminal it is attached to. The code for the Mod2 is actually run in the Mod1 because the Mod2 is an I/O head only. The Mod1 may run different code or the same code for the two heads, but the actual load goes to the Mod1 terminal. The programs for the two heads run on the same CPU, and all loads come from the controller. For other applications, the Mod2 terminal gets its IPL from its controlling device.

Terminal Verification Test for the 4683, 4693, or 4694

The Terminal Verification Tests (sometimes called *CSU tests*) verify correct operation of the Feature Expansion cards and the devices connected to the base unit or system unit. The progress and results of these tests is shown as a series of messages on the terminal display.

The tests run for the Feature Expansion cards and devices that are configured for your terminal.

Tests are bypassed for Feature Expansion cards and devices that are not configured for your terminal.

1. Press **S1**, type **92**, and press **S2** to start the Terminal Verification Tests.
2. Follow the instructions on the display. If an error message displays, follow the User Response for the message in this manual after completion of the remaining verification tests.
3. To stop the tests, type **0** and press **S2** or press **S2**. The next device test is then loaded. Press **S2** to continue.

Collecting Vital Product Data for the 4683 or 4693

1. Power Off the 4683 base unit or 4693 system unit.
2. Unplug the base unit or system unit power cord from the power receptacle.
3. Record the serial number of the terminal.

   The serial number is embossed on the top of the base unit or system unit cover at the right rear corner.
4. Record the seven-character Engineering Change (EC) number of the base card installed in the base unit or the system card installed in the system unit.

   The EC number is usually located on a label on the component side of the base card or system card near cable socket 7. If you do not find it there, look near the center of the card.
5. Record the EC number of the power supply installed in your base unit or system unit.

   The EC number is found in the storage retention battery compartment behind the side cover (battery access).

Entering Vital Product Data for the 4683 or 4693

This procedure is used to enter vital product data for the 4683 or 4693. The data is stored in totals retention storage. Before starting this procedure, ensure that:

- The 4683 or 4693 is attached to an active TCC Network or store loop.
- The TCC Network or store loop is being controlled by an active store controller.
- The store controller is running the operating system.

1. Start test mode by keying in **S1, 9, 1, S2**.
2. When message T0010 is displayed, key in **9, 8, S2**.

Message T9801 is displayed.

3. Key in the serial number of your terminal including the dash (embossed on the base unit or system unit or on the RID tag).
4. Press **S2**.

   One of the following messages displays:
   - Message T9802
   - Message T9803
5. Key in the seven-character EC number of the base card installed in your base unit or of the system card installed in your system unit.

   If there are more than seven characters in the EC number, enter only the first seven characters and omit the dash (-), if present.
6. Press **S2**.

   Message T9804 displays.
7. Key in the EC number of the power supply installed in your base unit or system unit.
8. Press **S2**.

   Message T9805, then message T0010, displays.
9. Power Off the base unit or system unit, wait 5 seconds, and switch the power On again.

Note: To print and review the data just entered, see "Printing Vital Product Data for the 4683 or 4693" on page 439.

Printing Vital Product Data for the 4683 or 4693

1. Ensure that the 4683 or 4693 is attached to an active TCC Network or store loop that is being controlled by an active store controller.
   - If this is a 4683-002, ensure that it is attached to an active 4683 Mod1 terminal.
   - If this is a 4693 Mod2 terminal, ensure that it is attached to an active 4693 Mod1 terminal.
2. Start Test Mode by keying in **S1, 9, 1, S2**.
3. When message T0010 is displayed, key in **9, 7, S2**.

   Message T9701 displays.
4. Key in the 3-digit terminal number.
5. Press **S2**.
   - If message T9702 displays, the terminal number entered was the wrong length. Enter the 3-digit terminal number again.
   - If message T9703 displays, the number was not valid or was not found. Enter a valid terminal number again.
6. The vital product data for the selected terminal is printed at the receipt station.

   The vital product data is printed one item per line. Each item represents a segment of the vital product data for the selected terminal.
   The first three lines list the terminal number, type and model, and serial number.
   The next three lines list the EC number for the base card or system card, the power supply, and the base card or system card read-only storage (ROS) module.
   The remainder of the lines lists the EC number of the microprocessor modules for each device that is connected.

   Message T9701 is displayed when printing is finished.
7. Vital product data for additional terminals can be printed by entering a new number.
8. To end this procedure, key in **0, S2**.

   Message T0010 displays.
9. To end Test Mode, key in **9, 9, S2**.

Printing Vital Product Data for the 4694 or SurePOS 300/700 Series

1. Power On the terminal and wait for the terminal to complete the IPL.
2. Start Test Mode by keying in **S1, 9, 1, S2**.
3. When message T0010 is displayed, key in **9, 7, S2**.

   Message T9701 displays.
4. Key in the 3-digit terminal number.
5. Press **S2**.
   - If message T9702 displays, the terminal number entered was the wrong length. Enter the 3-digit terminal number again.
   - If message T9703 displays, the number was not valid or was not found. Enter a valid terminal number again.
6. The vital product data for the selected terminal is printed at the receipt station.

   The vital product data is printed one item per line. Each item represents a segment of the vital product data for the selected terminal.
   The first three lines list the terminal number, type and model, and serial number.
   The next line lists the BIOS level.
   The remainder of the lines lists the EC number of the microprocessor modules for each device that is connected.

   Message T9701 is displayed when printing is finished.
7. Vital product data for additional terminals can be printed by entering a new number.
8. To end this procedure, key in **0, S2**.

   Message T0010 displays.
9. To end Test Mode, key in **9, 9, S2**.

Using the Supplemental Diskette or the Supplemental option using the CD-ROM to Recover from a PLD

A loss of electrical power is referred to as a *power line disturbance (PLD)*. Although the operating system can recover from most PLDs, PLDs can occur when the operating system is performing certain hard disk drive functions that ***are not*** recoverable. For example, the store controller cannot recover when a PLD occurs while the operating system is writing to:

- The disk files
- The subdirectories
- The FAT sectors that are mandatory for IPL.

When the store controller fails to recover from a PLD, use the following procedure:

1. Power Off the store controller.
2. Insert the Supplemental Diskette into diskette drive A or choose the Supplemental option using the CD-ROM:.
3. Power On the store controller.
4. Wait for the Supplementals to complete loading. Loading is complete when the SYSTEM MAIN MENU appears.
5. At this point, the hard disk drive has been corrected for sectors that were not complete as a result of the PLD. Remove the Supplemental Diskette or CD-ROM and IPL from the hard disk drive.
6. The store controller should now load as it did prior to the PLD. If the store controller does not IPL, it may be necessary to recover the operating system from your previously prepared backup. If any messages or codes appear as a result of the IPL failure, see Chapter 2, “Messages,” on page 9.

Appendix D. U Message and W Message PDPs

The problem determination procedures (PDP) in this appendix are intended to address several different combinations of terminals and models. These PDPs apply to store loop users only. The store loop controllers include:

- SurePOS 750 Model 202
- SurePOS 750 Model 242
- 4694
- 4693-541
- 4693-741
- IBM Personal Computers

Table 25 on page 441 defines the generic terms (**Mod1** and **Mod2**) used in the procedures:

Table 25. 4683, 4693, 4694, and SurePOS 700 Series Models

Loop-Attached Medialess Terminals (Mod1)	Partner Terminals (Mod2)
4694	Not supported
SurePOS 750 Model 2x2	Not supported
SurePOS 730 Model 1x2	Not supported
4693-7x1	4693-xx2
4693-5x1	4693-xx2
4693-4x1	4683-xx2
4693-3x1	Not supported
4683-xx1	4683-xx2

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MAP 0010: U003 Message

4683, 4693, 4694, SurePOS 700 Series— The Mod1 terminal has completed its power-on self-tests (POST) and it is waiting to receive communications from the store loop. It is not yet receiving store loop polls. A partner 4683 Mod2 terminal displays the same message but a partner 4693 Mod2 terminal does not.

The possible causes are:

- The store loop is open up-loop from the Mod1 terminal displaying U003.
- A Mod1 terminal is failing up-loop.
- The Mod1 terminal store loop cable is failing.
- The Mod1 terminal store loop adapter is failing.
- The Mod1 terminal system board is failing.
- The primary store controller is failing.
- The backup store controller is failing.
- The distance between powered on Mod1 terminals on the store loop exceeds 1220 m (4000 ft).

Figure 23 on page 443 represents a typical store loop using the IBM Loop Wiring Concentrator. Your store loop might not be wired like this, but the position of your terminals on the loop and their relationship to the store controller will be similar. The terminal numbers are shown in numeric order, but they can be put in any order on your store loop. The store controller transmits data to the first Mod1 down-loop on the store loop. This Mod1 receives the data and passes it to the next Mod1 down-loop. This continues with each Mod1 receiving data from the Mod1 immediately up-loop from its position, and passing it on to the next Mod1 down-loop. The last Mod1 down-loop passes the data back to the store controller.

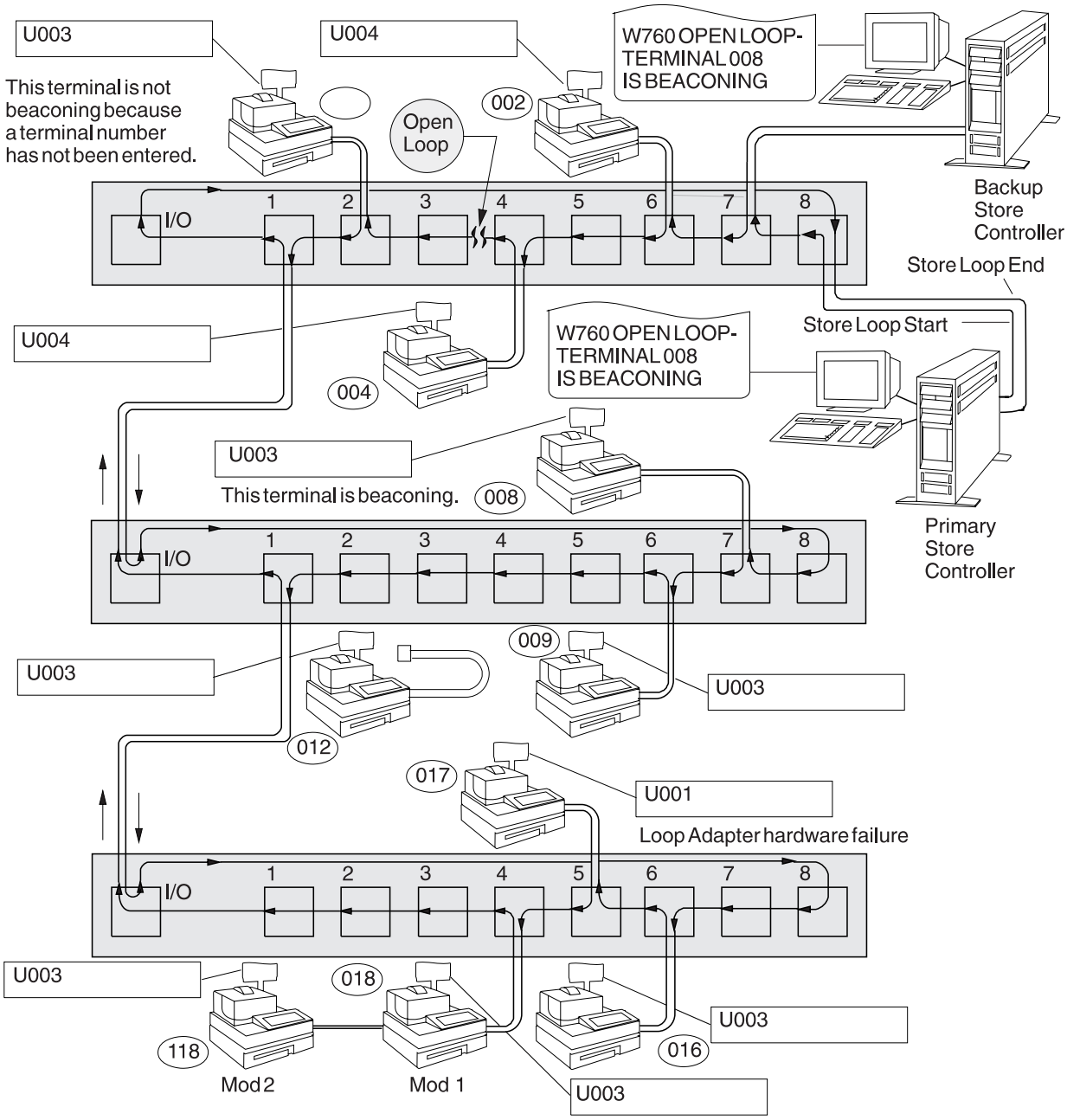


Figure 23. Store Loop with an Open Condition

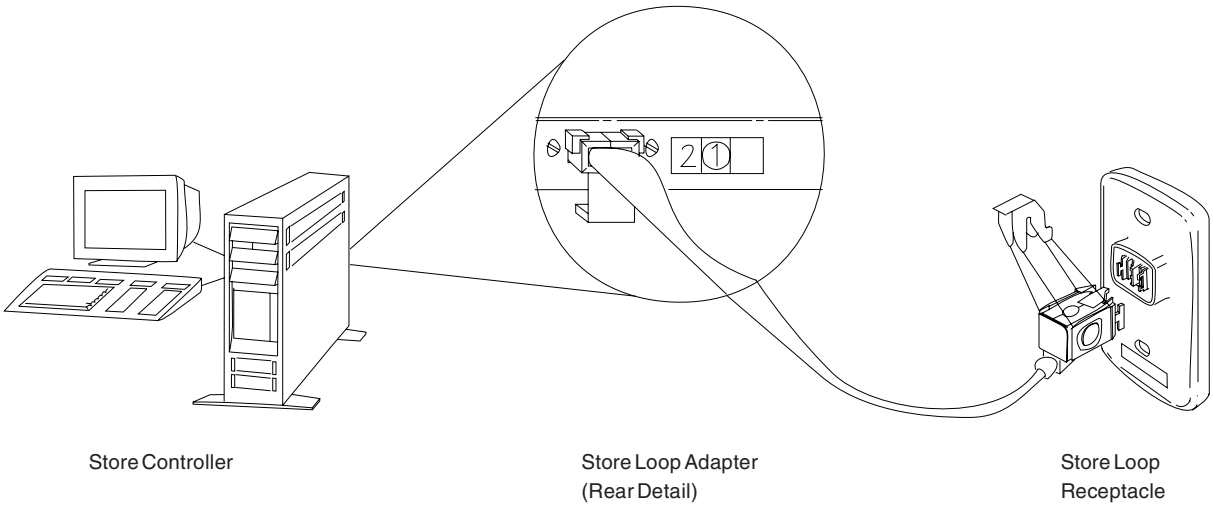


Figure 24. Store Controller Store Loop Adapter and Store Loop Receptacle

001

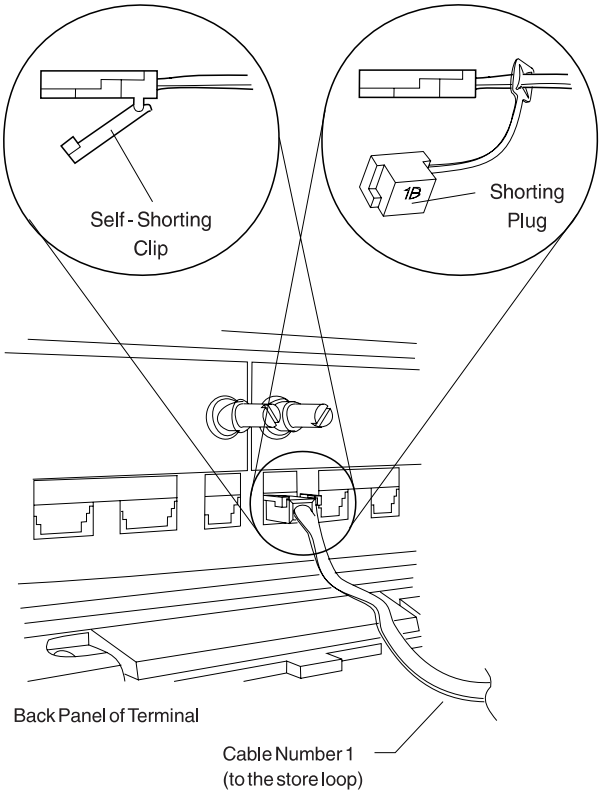


Figure 25. Mod1 terminal Store Loop Cable 1 and Shorting Plug 1B

To display the terminal number, press **S1**, type **7**, and press **S2**.
To display messages at a point-of-sale terminal (when the keyboard OFFLINE light is on), press **S1**, type **2**, and press **S2**.

Note: On the Enhanced Alphanumeric Keyboard, during some procedures, **Esc** = S1 and **Enter** = S2.

To display a system message at the store controller, sign on at the store controller, press **System Request** and then press the **M** key.
U003 is displayed at one of the following terminals.

- A 4694-xxx
- A 4683-xx1
- A 4693-xx1
- A SurePOS 700 Series
- A 4683-xx2 attached to a 4683-xx1
- A 4693-xx2 attached to a 4693-xx1

Obtain a store loop layout chart, see Figure 23 on page 443, containing:

- The physical location of store controllers and point-of-sale terminals
- The order of store controllers and point-of-sale terminals on the store loop
- The terminal numbers.

Ensure the store loop cable is plugged into the loop socket on the terminal displaying U003 and that the other end of the cable is plugged into the store loop receptacle. See Figure 24 on page 444 and Figure 25 on page 444.

Is there a backup store controller connected to this store loop?
Yes No

002

– Continue at Step 011 on page 446.

003

– At the backup store controller, display the Backup Store Loop status. See “Requesting store controller status” on page 383.

Is the Backup Store Loop status “Providing Backup”?
Yes No

004

– Continue at Step 008 on page 446.

005

– At the primary store controller, display the Store Loop Control status.

The primary store controller is the controller that has been designated to control the store loop. It is supported by the backup store controller.

Is the Store Loop Control status “Controlling Loop”?
Yes No

006

– Disconnect the primary store controller from the store loop by unplugging its store loop cable from the store loop receptacle.

Do not reconnect this store controller until the problem has been resolved.

– Continue at Step 011 on page 446.

007

Both store controllers are trying to control the store loop. This condition is caused by attaching an active store controller to the store loop when another active store controller is on the store loop.

– Disable the backup store controller. See “Requesting store controller status” on page 383.

– Wait 15 seconds and enable the backup store controller.

Return to normal store operation.

008

– Disconnect the backup store controller from the store loop by unplugging its store loop cable from the store loop receptacle.
– ***Do not reconnect this store controller until the problem has been resolved***.
– Wait 15 seconds and observe the keyboard lights on the terminal displaying U003.

Did the OFFLINE light go off?
Yes No

009

– Continue at Step 011 on page 446.

010

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the backup store controller to continue problem determination.

011

– Display the system message at the active store controller by pressing **System Request** and then pressing the **M** key.

A store controller is active when it is:
The only store controller on the store loop
or
The primary store controller and its status is “Controlling Loop”
or
The backup store controller and its status is “Providing Backup”.

Did the active store controller display message W760 or W764?
Yes No

012

– Continue at Step 022 on page 447.

013

– Note the information in the message and return to the terminal displaying U003.
– If it is a Mod2 terminal, go to its partner Mod1 terminal. A 4683 Mod2 terminal displays the status of its partner Mod1. See Figure 23 on page 443.

Did message W760 display at the store controller?
Yes No

014

– Continue at Step 017 on page 447.

015

– Use the store loop layout chart, see Figure 23 on page 443, to determine if the terminal number of this terminal is the same as the terminal number in message W760.

Is the terminal number the same?
Yes **No**

016

Follow “MAP 0070: Store Loop Problem” on page 473.

017

The store controller transmits data down-loop to the first Mod1 terminal and to all the following terminals on the store loop. Each Mod1 terminal receives its data from the Mod1 or store controller up-loop from its position on the store loop.

Is this the first powered on Mod1 terminal down-loop from the active store controller?
Yes **No**

018

– Continue at Step 038 on page 449.

019

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 24 on page 444.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did message W761 display?
Yes **No**

020

– Reconnect the Mod1 terminal to the store loop and continue at Step 066 on page 452.

021

– Continue at Step 050 on page 450.

022

– Return to the terminal displaying U003. If it is a Mod2 terminal, go to its partner Mod1. A 4683 Mod2 terminal displays the status of its partner Mod1.

A Mod1 terminal is considered active if it has a terminal number, is powered On, and attached to the store loop.

Are there other active Mod1 terminals attached to the store loop?
Yes **No**

023

– Continue at Step 027 on page 448.

024

Is this terminal the only Mod1 that is not working correctly?
Yes No

025

– Return to the active store controller and continue at Step 030 on page 448.

026

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 24 on page 444.
– Continue at Step 050 on page 450.

027

– Unplug the store loop cable from the loop cable socket on the Mod1. See Figure 25 on page 444.
– Wait five seconds and reconnect the cable.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did the active store controller display message W760, W761, or W764?
Yes No

028

– Continue at Step 030 on page 448.

029

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

030

Is the store loop cable on the active store controller plugged into the store loop receptacle?
Yes No

031

Correct the problem by connecting the store controller cable to the store loop receptacle.

032

Is power switched on at the active store controller?
Yes No

033

– Switch power On and continue at Step 035 on page 449.

034

– Return to the Mod1 terminal and switch power Off.
– Switch power On again to IPL the terminal and continue at Step 035 on page 449.

035

Did the terminal IPL correctly?
Yes No

036

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

037

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

038

– Look for Mod1 terminals up-loop from this terminal with U003 displayed. See Figure 23 on page 443 for a store loop layout chart.

Are there any Mod1 terminals up-loop from this terminal with U003 displayed?
Yes No

039

– Continue at Step 045 on page 450.

040

– Return to the active store controller and check each Mod1 terminal down-loop until you find one displaying U003.

Is this the first powered on Mod1 terminal down-loop from the active store controller?
Yes No

041

– Continue at Step 045 on page 450.

042

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 24 on page 444.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did message W761 display?
Yes No

043

– Reconnect the Mod1 terminal to the store loop and continue at Step 066 on page 452.

044

– Continue at Step 050 on page 450.

045

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 24 on page 444.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did message W761 display?
Yes No

046

– Reconnect the Mod1 terminal to the store loop and continue at Step 048 on page 450.

047

– Continue at Step 050 on page 450.

048

– Go to the next powered on Mod1 terminal up-loop from this Mod1. See Figure 23 on page 443 for the store loop layout chart.
– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did message W761 display?
Yes No

049

– Reconnect the Mod1 terminal to the store loop and continue at Step 057 on page 451.

050

Is the store loop cable plugged into the loop cable socket on this Mod1 terminal?
Yes No

051

Correct the problem by plugging the cable into the loop cable socket.

052

– Unplug the store loop cable from the loop cable socket on this Mod1 terminal.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 25 on page 444.
– Plug the other end of the cable into the store loop receptacle.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did the active store controller display message W760 or W764?
Yes No

053

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

054

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

055

Report the problem to the person responsible for repairing store loop wiring.

056

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

057

The problem is in the store loop segment between the two powered-on Mod1 terminals.

Are there any powered-off Mod1 terminals attached to the store loop segment between the two powered-on terminals?
Yes No

058

The problem is in the store loop wiring ***or*** in store loop receptacles for the Mod1 terminals. Report the problem to the person responsible for repairing store loop wiring.

059

– One at a time, disconnect each powered-off Mod1 terminal from the store loop segment by unplugging its store loop cable from the store loop receptacle.
– After each terminal is disconnected, return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did message W761 display?
Yes No

060

If all powered-off terminals have ***not*** been disconnected, continue disconnecting them and displaying the system message at the active store controller.

or

If all powered-off terminals have been disconnected, the problem is in the store loop wiring ***or*** the store loop receptacles for the Mod1 terminals.

Reconnect all terminals and report the problem to the person responsible for repairing store loop wiring.

061

– Unplug the store loop cable from the loop cable socket on the Mod1 terminal that you just disconnected from the store loop.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 25 on page 444.
– Plug the other end of the cable into the store loop receptacle.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did the active store controller display message W760 or W764 again?
Yes No

062

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

063

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

064

Report the problem to the person responsible for repairing store loop wiring.

065

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

066

Is the store loop cable plugged into the store loop adapter on the active store controller? See Figure 24 on page 444.
Yes No

067

Correct the problem by plugging the cable into the store loop adapter.

068

– Disconnect the active store controller from the store loop by unplugging its store loop cable from the store loop receptacle.
– Display the system message at the active store controller by pressing **System Request** and then pressing the **M** key.

Did message W761 display?
Yes No

069

The problem is in the active store controller, the store loop adapter, or the store loop adapter cable.

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

070

– Reconnect the active store controller to the store loop.

Are there any powered-off Mod1 terminals connected to the store loop segment between the terminal displaying U003 and the active store controller?
Yes No

071

The problem is in the store loop wiring between the active store controller and the Mod1 ***or*** in the store loop receptacle for the store controller or Mod1 terminal.
Report the problem to the person responsible for repairing store loop wiring.

072

– One at a time, disconnect each powered-off Mod1 terminal from the store loop segment by unplugging its store loop cable from the store loop receptacle.
– After each terminal is disconnected, return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did message W761 display?
Yes No

073

If all powered-off terminals have ***not*** been disconnected, continue disconnecting them and displaying the system message at the active store controller.

If all powered-off terminals have been disconnected, the problem is in the store loop wiring between the active store controller and the Mod1 terminal ***or*** in the store loop receptacle for the store controller or Mod1 terminal.

Reconnect all terminals and report the problem to the person responsible for repairing store loop wiring.

074

– Unplug the store loop cable from the loop cable socket on the Mod1 terminal that you just disconnected from the store loop.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 25 on page 444.
– Plug the other end of the cable into the store loop receptacle.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.
– Continue at Step 075 on page 454.

075

Did the active store controller display message W760 or W764 again?
Yes No

076

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit or call for service on the 4693 loop adapter.

077

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

078

Report the problem to the person responsible for repairing store loop wiring.

079

Correct the problem by exchanging the store loop cable attached to the terminal.

MAP 0020: U004 Message

4683, 4693, 4694, or SurePOS 700 Series — The Mod1 terminal has completed its power-on self-tests and it has started to communicate over the store loop with the store controller. It has received store loop polls from the store controller. It has not yet received a response to messages sent to the store controller. A partner 4683 Mod2 terminal also displays U004.

When the optional feature “Terminal Program Load” is being used, this message indicates:

- This Master Terminal has not received a load request from any other terminal.

  or
- This Mod1 terminal has not received a response to a load request it sent to the Master Terminal.

The possible causes are:

- The store loop is open down-loop from the terminal displaying U004.
- A Mod1 terminal is failing down-loop.
- The Mod1 terminal store loop cable is failing.
- The Mod1 terminal store loop adapter is failing.
- The Mod1 terminal system board is failing.
- The primary store controller is failing.
- The backup store controller is failing.
- The distance between powered-on Mod1 terminals on the store loop exceeds 1220 m (4000 ft).
- If terminal program load is being used, and this condition exists for more than 10 minutes, terminal program load is not operating correctly. Report the problem to the store programmer.

Figure 26 on page 456 represents a typical store loop using the IBM Loop Wiring Concentrator. Your store loop might not be wired like this, but the position of your terminals on the loop and their relationship to the store controller will be similar. The terminal numbers are shown in numeric order, but they can be put in any order on your store loop. The store controller transmits data to the first terminal down-loop on the store loop. This terminal receives the data and passes it to the next terminal down-loop. This continues with each terminal receiving data from the terminal immediately up-loop from its position, and passing it on to the next terminal down-loop. The last terminal down-loop passes the data back to the store controller.

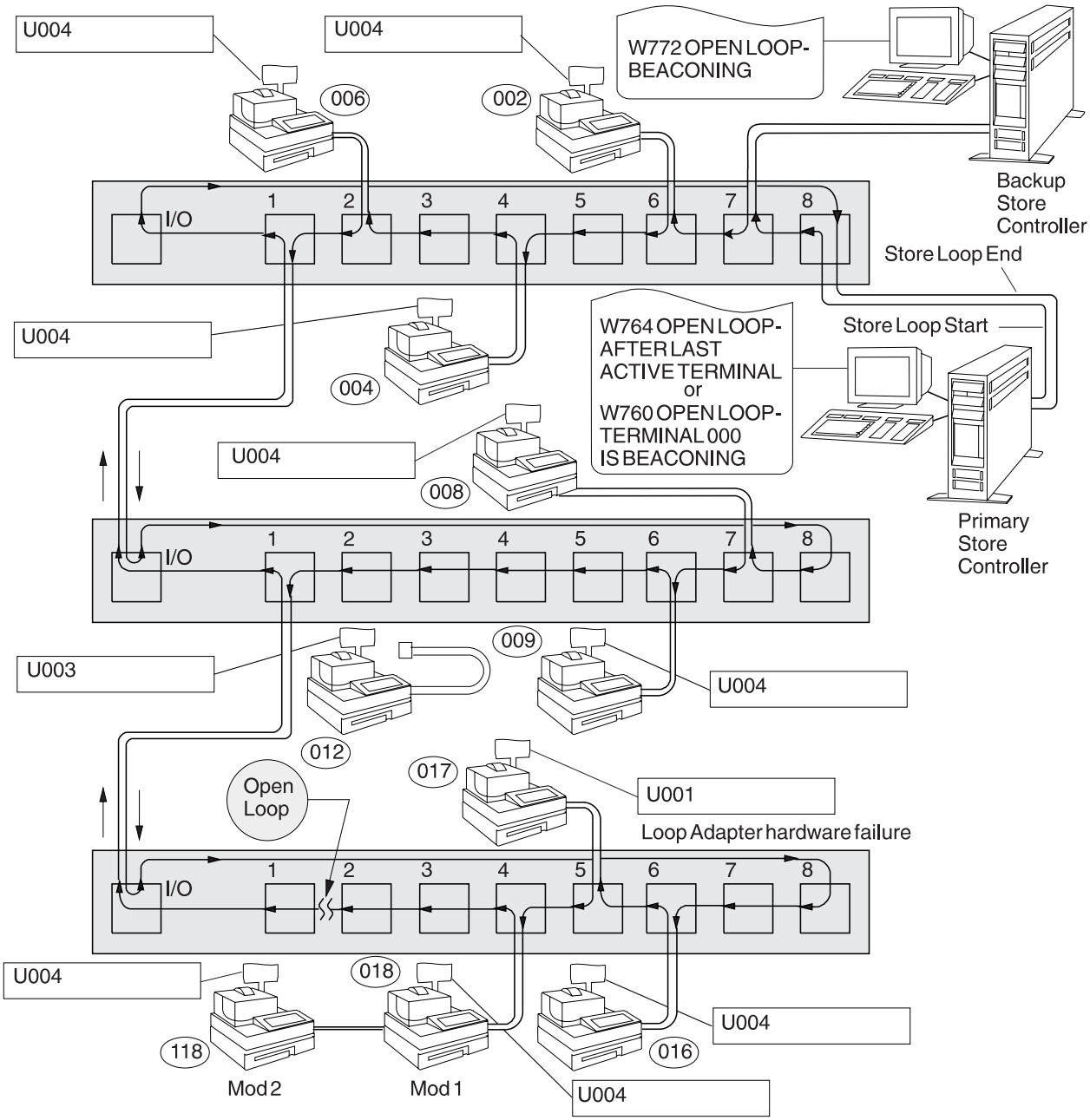


Figure 26. Store Loop with an Open Condition

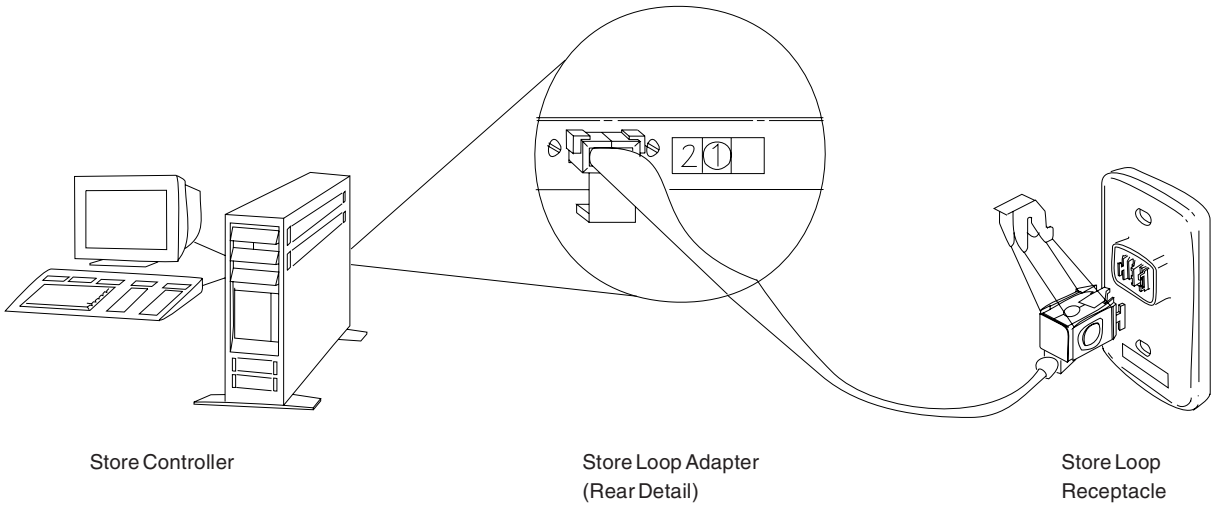


Figure 27. Store Controller Store Loop Adapter and Store Loop Receptacle

001

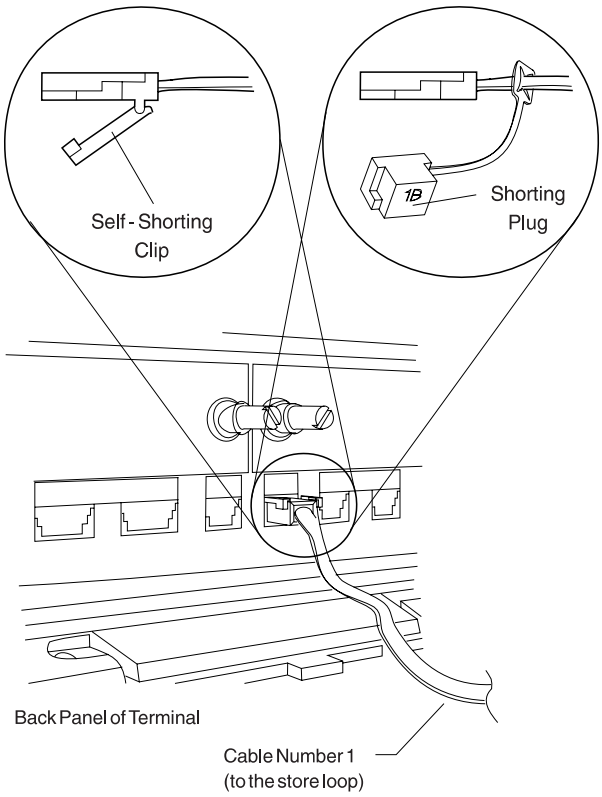


Figure 28. Mod1 terminal Store Loop Cable 1 and Shorting Plug 1B

To display the terminal number, press **S1**, type **7**, and press **S2**.
To display messages at a point-of-sale terminal (when the keyboard OFFLINE light is on), press **S1**, type **2**, and press **S2**.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.

To display a system message at the store controller, sign on at the store controller, press **System Request** and then press the **M** key.
U004 is displayed at one of the following terminals.

- A 4694-xxx
- A 4683-xx1
- A 4693-xx1
- A SurePOS 700 Series
- A 4683-xx2 attached to a 4683-xx1
- A 4693-xx2 attached to a 4693-xx1

Obtain a store loop layout chart , see Figure 23 on page 443, containing:

- The physical location of store controllers and point-of-sale terminals
- The order of store controllers and point-of-sale terminals on the store loop
- The terminal numbers.

Is there a backup store controller connected to this store loop?
Yes No

002

– Continue at Step 011 on page 459.

003

– At the backup store controller, display the Backup Store Loop status. See “Requesting store controller status” on page 383.

Is the Backup Store Loop status “Providing Backup”?
Yes No

004

– Continue at Step 008 on page 459.

005

– At the primary store controller, display the Store Loop Control status.

The primary store controller is the controller that has been designated to control the store loop. It is supported by the backup store controller.

Is the Store Loop Control status “Controlling Loop”?
Yes No

006

– Disconnect the primary store controller from the store loop by unplugging its store loop cable from the store loop receptacle.

Do not reconnect this store controller until the problem has been resolved.

– Continue at Step 011 on page 459.

007

Both store controllers are trying to control the store loop. This condition is caused by attaching an active store controller to the store loop when another active store controller is on the store loop.

– Disable the backup store controller. See “Requesting store controller status” on page 383.

– Wait 15 seconds and enable the backup store controller.

Return to normal store operation.

008

– Disconnect the backup store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 27 on page 457.

Do not reconnect this store controller until the problem has been resolved.

– Wait 15 seconds and observe the keyboard lights on the Mod1 terminal displaying U004.

Did the OFFLINE light go off?
Yes No

009

– Continue at Step 011 on page 459.

010

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the backup store controller to continue problem determination.

011

– Display the system message at the active store controller by pressing **System Request** and then pressing the **M** key.

A store controller is active when it is:
The only store controller on the store loop
or
The primary store controller and its status is “Controlling Loop”
or
The backup store controller and its status is “Providing Backup”.

Did the active store controller display message W760 or W764?
Yes No

012

– Continue at Step 041 on page 462.

013

Did message W760 display?
Yes No

014

– Continue at Step 016 on page 459.

015

Follow “MAP 0070: Store Loop Problem” on page 473.

016

– Return to the terminal displaying U004. If it is a Mod2 terminal, go to its partner Mod1 terminal. A 4683 Mod2 terminal displays the status of its partner Mod1 terminal. See Figure 23 on page 443 for the store loop layout chart.

A terminal is considered active if it has a terminal number, is powered On, and attached to the store loop.

Is this the last active Mod1 terminal attached to the store loop?
Yes **No**

017

– Go to the last active Mod1 terminal attached to the store loop. See Figure 23 on page 443 for the store loop layout chart.
– Continue at Step 018 on page 460.

018

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did message W761 display?
Yes **No**

019

– Reconnect the Mod1 terminal to the store loop and continue at Step 027 on page 461.

020

Is the store loop cable plugged into the loop cable socket on this Mod1 terminal?
Yes **No**

021

Correct the problem by plugging the cable into the loop cable socket.

022

– Unplug the store loop cable from the loop cable socket on this Mod1 terminal.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 28 on page 457.
– Plug the other end of the cable into the store loop receptacle.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did the active store controller display message W760 or W764?
Yes **No**

023

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

024

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes **No**

025

Report the problem to the person responsible for repairing store loop wiring.

026

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

027

Are there any powered-off Mod1 terminals attached to the store loop segment between the terminal that you just reconnected to the store loop and the active store controller?
Yes **No**

028

– Continue at Step 036 on page 462.

029

– One at a time, disconnect each powered-off Mod1 terminal from the store loop segment by unplugging its store loop cable from the store loop receptacle.
– After each Mod1 terminal is disconnected, return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did message W761 display?
Yes **No**

030

If all powered-off terminals have ***not*** been disconnected, continue disconnecting them and displaying the system message at the active store controller.

or

If all powered-off terminals have been disconnected, reconnect all of them and continue at Step 036 on page 462.

031

– Unplug the store loop cable from the loop cable socket on the Mod1 terminal that you just disconnected from the store loop.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 28 on page 457.
– Plug the other end of the cable into the store loop receptacle.
– Return to the active store controller and display the system message by pressing **System Request** and then pressing the **M** key.

Did the active store controller display message W760 or W764?
Yes **No**

032

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

033

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

034

Report the problem to the person responsible for repairing store loop wiring.

035

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

036

Is the store loop cable plugged into the store loop adapter on the active store controller? See Figure 27 on page 457.
Yes No

037

Correct the problem by plugging the cable into the store loop adapter.

038

– Disconnect the active store controller from the store loop by unplugging its store loop cable from the store loop receptacle.
– Display the system message at the active store controller by pressing **System Request** and then pressing the **M** key.

Did message W761 display?
Yes No

039

The problem is in the active store controller, the store loop adapter, or the store loop adapter cable.

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

040

– Reconnect the active store controller to the store loop.

The problem is in the store loop wiring between the active store controller and the last active Mod1 terminal ***or*** in the store loop receptacle for the store controller or Mod1 terminal.
Report the problem to the person responsible for repairing store loop wiring.

041

– Return to the terminal displaying U004. If it is a Mod2 terminal, go to its partner Mod1. A 4683 Mod2 terminal displays the status of its partner Mod1. See Figure 23 on page 443 for the store loop layout chart.
– Switch power Off.

– Wait five seconds and switch power On again.
– Wait at least two minutes for the Mod1 terminal to become operational.

Is U004 still displayed?
Yes No

042

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

043

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the primary store controller to continue problem determination.

MAP 0030: U005 Message

The Mod1 terminal has completed its power-on self-tests and it has sent a message to the store controller to request an IPL. The first load block has been received. A partner 4683 Mod2 terminal also displays U005.

When the optional feature “Terminal Program Load” is being used, this message indicates:

- This Master Terminal has received a load request from another terminal and it is transferring its storage across the store loop.

  or
- This Mod1 terminal has received a response to a load request it sent to the Mod1 Master Terminal and it is receiving a storage load.

The possible causes are:

- The store controller is failing.
- The store loop is failing.
- If terminal program load is being used, and this condition exists for more than ten minutes, terminal program load is not operating correctly. Report the problem to the store programmer.

001

– Switch power Off at the Mod1 terminal.

– Wait five seconds and switch power On again.

Did the Mod1 terminal IPL correctly?

Yes **No**

002

– Continue at Step 004 on page 464.

003

The Mod1 terminal is operating correctly now.

004

Did the terminal IPL stop with U005 displayed again?

Yes **No**

005

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

006

The Mod1 terminal hardware is operating correctly.
The software can also cause this problem.

1. Fill in a copy of the “Problem data collection form” on page 390.
2. Use primary keyword MSGU005 and additional keywords CONTROLLER and INCORROUT.
3. Report the problem to the store programmer and provide the preceding information.

MAP 0040: U006 Message

4683, 4693, 4694, SurePOS 700 Series — The Mod1 terminal has completed its IPL process and the terminal operating system load is complete. The terminal operating system has control and optional drivers are being installed. A partner 4683 Mod2 terminal also displays U006.

The possible causes are:

- The store controller is failing.
- The terminal number is incorrect.
- A 4683 Feature Expansion card or 4693 option card is in the wrong location.
- The alphanumeric, operator, or shopper display is plugged into the wrong socket.
- The Mod1 terminal has the wrong partner Mod2 attached.
- The 4693, 4694, or SurePOS 700 Series Mod1 system unit is failing.
- The 4683 Mod1 base unit is failing.
- The partner Mod2 terminal is failing.
- The partner Mod2 terminal keyboard is failing.
- The partner Mod2 terminal alphanumeric or operator display is failing.

001

U006 is displayed at one of the following terminals.

- A 4694-*xxx*
- A 4693-*xx*1
- SurePOS 700 Series
- A 4683-*xx*1
- A 4693-*xx*2 attached to a 4693-*xx*1.
- A 4683-*xx*2 attached to a 4683-*xx*1.

System Display — When multiple displays are attached to a point-of-sale terminal, one is configured as the system display. When only one display is attached, it serves as the system display. System messages (W*nnn*), test messages (T*nnnn*), and other messages of this type appear only on the system display.
Switch power Off.
Wait five seconds and switch power On again.

Did the IPL stop again with U006 displayed?
Yes No

002

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

003

Is U006 displayed on the system display?
Yes No

004

– Test the display that is displaying U006.

005

Is this a Mod2 terminal?
Yes No

006

– Continue at Step 010 on page 466.

007

– Continue at Step 008 on page 466

008

Is its partner Mod1 terminal displaying U006 also?
Yes No

009

– Continue at Step 018 on page 467.

010

– See “Displaying the Terminal Configuration Using STC” on page 428 and ensure the attached devices match the devices defined by the configuration for the Mod1 terminal. Return here when displaying configuration is complete.

Do the attached devices match the devices defined by the configuration?
Yes No

011

– Switch power Off at the Mod1 terminal.

Replug the devices to match the configuration.

or

Change the configuration to match the attached devices.

012

– Switch power Off.
– Wait five seconds and switch power On again.
– Wait for message W008 to display.

Did message W008 appear in the system display?
Yes No

013

– Continue at Step 015 on page 467.

014

The Mod1 terminal is operating correctly now.

015

Did the Mod1 terminal IPL stop with U006 displayed again?
Yes No

016

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

017

Switch power Off and follow this list to isolate and correct the cause of the problem.

1. Service or exchange the keyboard.
2. Service the 4683-*xx*1 base unit.
3. Service the 4693-*xx*1, 4694-*xxx*, or SurePOS 700 Series system unit.
4. The software can also cause this problem.
   a. Fill in a copy of the “Problem data collection form” on page 390. Use primary keyword MSGU006 and additional keywords 4683-1, 4693-1, 4694, SurePOS 720, SurePOS 730, SurePOS 740, SurePOS 750 or SurePOS 780, and IPL.
   b. While U006 is displayed, request a storage dump. See “Requesting a terminal storage dump” on page 361.
   c. Report the problem to the store programmer and provide the preceding information.

018

– See “Displaying the Terminal Configuration Using STC” on page 428 and ensure the attached devices match the devices defined by the configuration for the Mod2 terminal. Return here when display configuration is complete.

Do the attached devices match the devices defined by the configuration?
Yes No

019

– Switch power Off at the Mod2 terminal.

Replug the devices to match the configuration.

Change the configuration to match the attached devices.

020

– Switch power Off.
– Wait five seconds and switch power On again.
– Wait for message W008 to display.

Did message W008 appear in the system display?
Yes No

021

– Continue at Step 023 on page 468.

022

The Mod1 terminal is operating correctly now.

023

Did the Mod2 terminal IPL stop with U006 displayed again?
Yes No

024

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

025

– Switch power Off at the Mod2 terminal.
– Disconnect the keyboard cable from socket 5A or 5B. Note the location of the cable.
– Switch power On again.

Did the Mod2 terminal IPL correctly?
Yes No

026

– Switch power Off at the Mod2 terminal.
– Reconnect the keyboard cable and continue at Step 028 on page 468.

027

Switch power Off and service or exchange the keyboard.

028

Is there another Mod2 terminal that also fails with U006 displayed?
Yes No

029

Follow this list to isolate and correct the cause of the problem.

1. Service the Mod2 terminal.
2. Exchange the point-of-sale display.
3. The software can also cause this problem.
   a. Fill in a copy of the “Problem data collection form” on page 390. Use primary keyword MSGU006 and additional keywords 4683-1, 4693-1, 4694, SurePOS 720, SurePOS 730, SurePOS 740, SurePOS 750 or SurePOS 780, and IPL.
   b. Switch power On at the Mod2 terminal.
   c. While U006 is displayed, request a storage dump. See “Requesting a terminal storage dump” on page 361.
   d. Report the problem to the store programmer and provide the preceding information.

030

– The Mod2 terminal hardware is operating correctly.
– The software can also cause this problem.
  1. Fill in a copy of the “Problem data collection form” on page 390. Use primary keyword MSGU006 and additional keywords 4683-1, 4693-1, 4694, SurePOS 720, SurePOS 730, SurePOS 740, SurePOS 750 or SurePOS 780, and IPL.
  2. Switch power On at the Mod2 terminal.
  3. While U006 is displayed, request a storage dump. See “Requesting a terminal storage dump” on page 361.
  4. Report the problem to the store programmer and provide the preceding information.

MAP 0050: U007 Message

4683, 4693, 4694, or SurePOS 700 Series — The terminal IPL process has loaded terminal message records and I/O data translation tables into storage. Point-of-sale terminal I/O driver programs are being loaded into storage. The display optional driver is installed. The remaining optional drivers are being installed.

001

Is U007 displayed at one of the following terminals?

- A 4694-*xxx*
- A 4693-*xx*1
- A SurePOS 700 Series
- A 4683-*xx*1
- A 4693-*xx*2 attached to a 4693-*xx*1
- A 4683-*xx*2 attached to a 4683-*xx*1

System Display — When multiple displays are attached to a point-of-sale terminal, one is configured as the system display. When only one display is attached, it serves as the system display. System messages (W*nnn*), test messages (T*nnnn*), and other messages of this type appear only on the system display. U007 remains on a display until the system sends data to the display. On a terminal with multiple displays, U007 can remain on some displays after the system display has displayed other messages.
Switch power Off at the Mod1 terminal.
Wait five seconds and switch power On again.

Did the Mod1 terminal IPL correctly?
Yes No

002

– Continue at Step 004 on page 470.

003

The Mod1 terminal is operating correctly now.

004

Did the Mod1 terminal IPL stop with U007 displayed again?
Yes No

005

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

006

– The Mod1 terminal hardware is operating correctly.
– The software can also cause this problem.
  1. Fill in a copy of the “Problem data collection form” on page 390.
  2. Use primary keywords MSGU007 and HANG and additional keywords 4683-1, 4693-1, 4694, SurePOS 720, SurePOS 730, SurePOS 740, SurePOS 750 or SurePOS 780, and IPL.
  3. While U007 is displayed, request a storage dump. See “Requesting a terminal storage dump” on page 361.
  4. Report the problem to the store programmer and provide the preceding information.

MAP 0060: U008 Message

The Mod1 terminal is dumping the contents of storage to a disk file in the store controller. It IPLs automatically after the dump is complete.

The possible causes are:

- The Mod1 terminal application program is failing.
- The Mod1 terminal program is failing.
- The Mod1 terminal dump or reset switch was pressed.
- The Mod1 terminal is failing.

001

Note: This message can stay on the terminal display for ten minutes.

– Wait for the Mod1 terminal to complete the dump and IPL.

Did the terminal IPL correctly?

Yes **No**

002

– Continue at Step 008 on page 472.

003

The Mod1 terminal sends a System Event Record to the store controller that indicates the reason the dump and IPL occurred.

– Scan system events in the System Log, at the store controller. See “Requesting a system log report” on page 365.

– Find the System Event Record logged by this terminal and containing source number 084.

Is message W052 in the System Event Record?

Yes **No**

004

– Continue at Step 015 on page 472.

005

Was the terminal dump or reset switch pressed?

Yes **No**

006

– Switch power Off at the Mod1 terminal.

Service the 4683 base unit.

or

Service the 4693, 4694, SurePOS 720, SurePOS 730, SurePOS 740, SurePOS 750 or SurePOS 780 system unit.

007

– Continue at Step 015 on page 472.

008

Is U008 displayed?
Yes No

009

The symptom has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

010

– Switch power Off at the Mod1 terminal.
– Wait five seconds and switch power On again.

Did the Mod1 terminal IPL correctly?
Yes No

011

– Continue at Step 013 on page 472.

012

– Continue at Step 015 on page 472.

013

Did U008 display again?
Yes No

014

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

015

The Mod1 terminal hardware is operating correctly.

– The software can also cause a terminal storage dump to take place.
  1. Fill in a copy of the “Problem data collection form” on page 390.
  2. Use primary keywords MSGU008 and HANG and additional keywords 4683-1, 4693-1, 4694, SurePOS 720, SurePOS 730, SurePOS 740, SurePOS 750 or SurePOS 780, and DUMP.
  3. Report the problem to the store programmer and provide the preceding information.

MAP 0070: Store Loop Problem

A symptom or failure occurred that indicates a store loop problem.

The possible causes are:

- The store loop is open up-loop from the beaconing Mod1 terminal.
- The beaconing Mod1 terminal is failing.
- The beaconing Mod1 terminal store loop cable is failing.
- A Mod1 terminal other than the one beaconing is failing.
- The primary store controller is failing.
- The backup store controller is failing.

001

–

1. Obtain a store loop layout chart, see Figure 23 on page 443, containing:
   - The physical location of store controllers and point-of-sale terminals
   - The order of store controllers and point-of-sale terminals on the store loop
   - The terminal numbers.
2. Go to the Mod1 terminal that has the terminal number displayed in message W007 or W760. See Figure 23 on page 443 for the store loop layout chart.
   If the terminal number in the message is 000, this indicates the backup store controller is beaconing.
3. Use the message at the Mod1 terminal or backup store controller to resolve the problem.

Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

MAP 0080: W001 Message

The Mod1 terminal is not receiving store loop communications.

The Mod1 terminal is not beaconing because it does not have a terminal number.

The Mod1 terminal keyboard OFFLINE light is on.

The possible causes are:

- The store loop is open up-loop from the Mod1 terminal displaying message W001.
- A Mod1 terminal is failing up-loop.
- The Mod1 terminal store loop cable is failing.
- The 4683 Mod1 system board is failing.
- The loop adapter is failing.
- The primary store controller is failing.
- The backup store controller is failing.
- The distance between powered-on Mod1 terminals on the store loop exceeds 1220 m (4000 ft).

Figure 29 on page 475 represents a typical store loop using the IBM Loop Wiring Concentrator. Your store loop might not be wired like this, but the position of your terminals on the loop and their relationship to the store controller will be similar. The terminal numbers are shown in numeric order, but they can be put in any order on your store loop. The store controller transmits data to the first Mod1 down-loop on the store loop. This Mod1 receives the data and passes it to the next Mod1 down-loop. This continues with each Mod1 receiving data from the Mod1 immediately up-loop from its position, and passing it on to the next Mod1 down-loop. The last Mod1 down-loop passes the data back to the store controller.

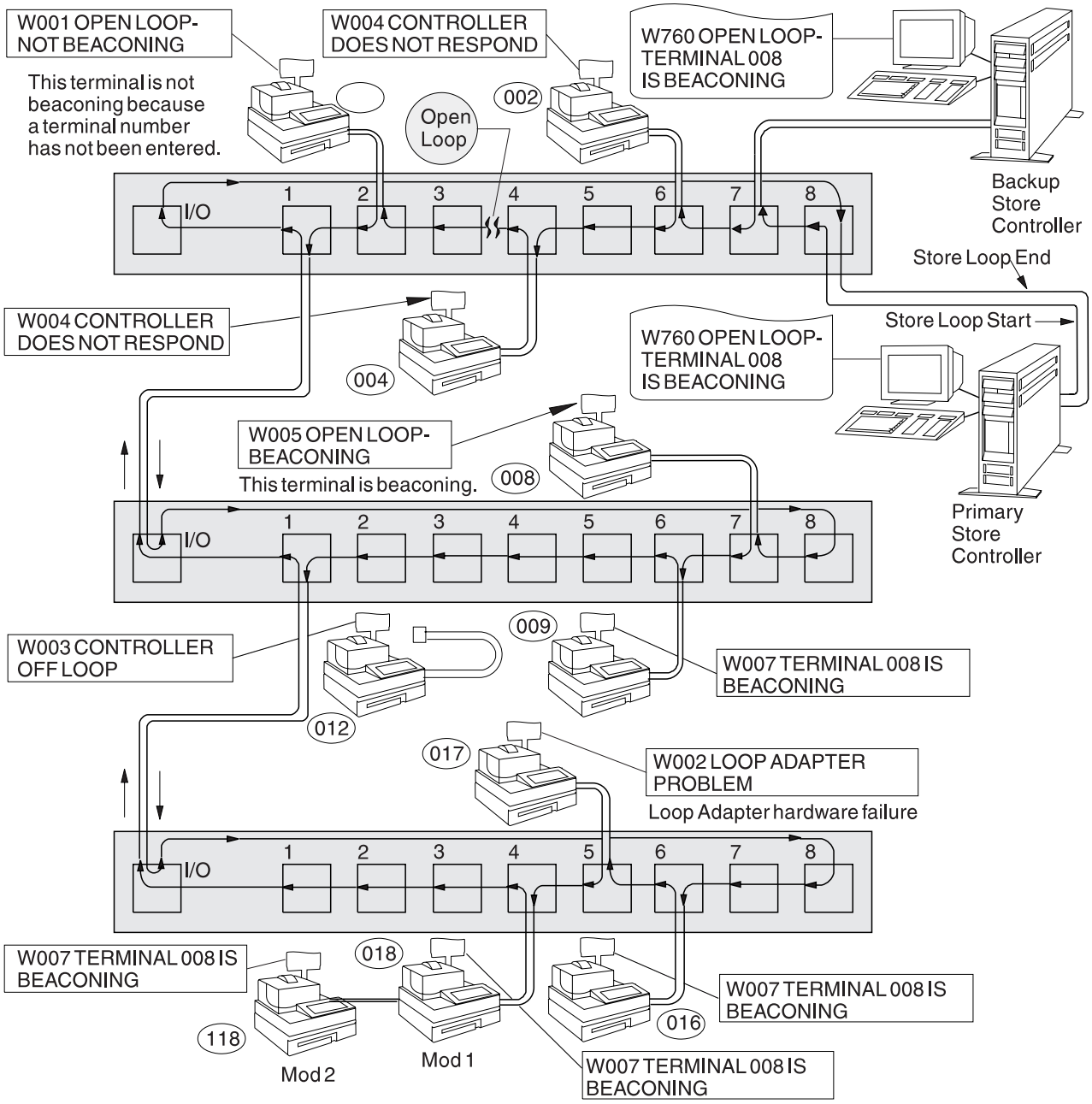


Figure 29. Store Loop with an Open Condition

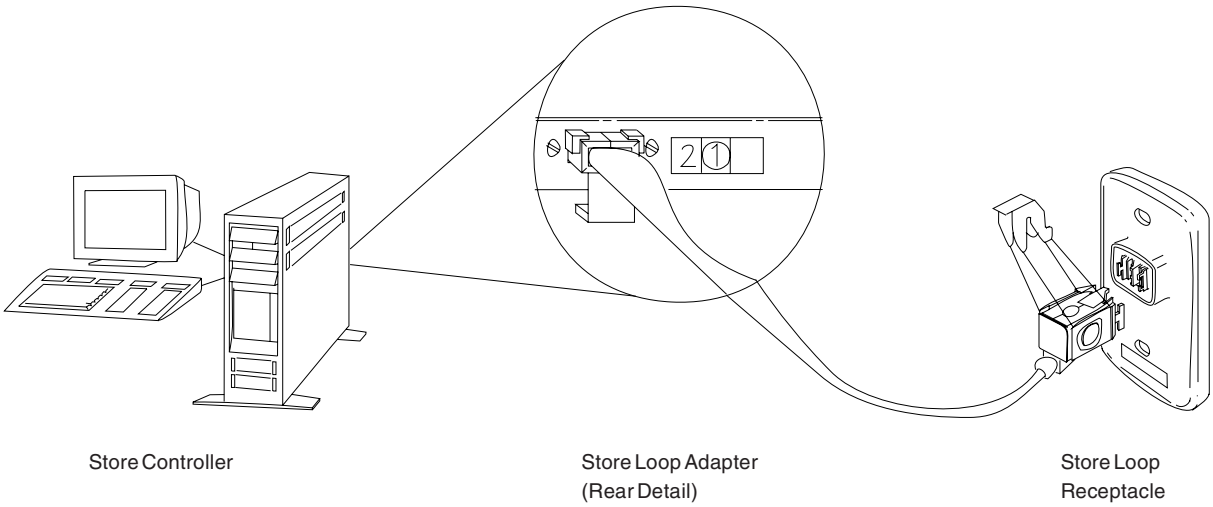


Figure 30. Store Controller Store Loop Adapter and Store Loop Receptacle

001

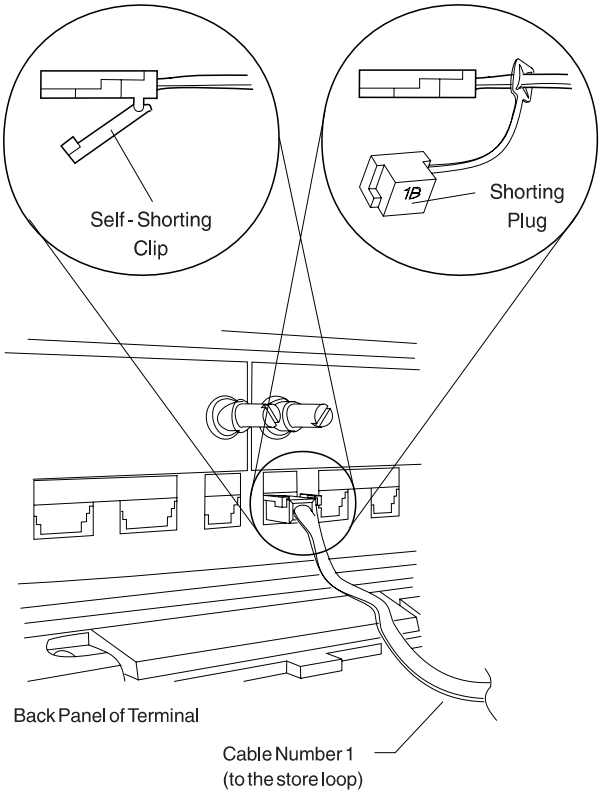


Figure 31. Mod1 Terminal Store Loop Cable 1 and Shorting Plug 1B

To display the terminal number, press **S1**, type **7**, and press **S2**.
To display messages at a point-of-sale terminal (when the keyboard OFFLINE light is on), press **S1**, type **2**, and press **S2**.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.

To display a system message at the store controller, sign on at the store controller, press **System Request** and then press **M**.

– Obtain a store loop layout chart, see Figure 23 on page 443, containing:
  • The physical location of store controllers and point-of-sale terminals
  • The order of store controllers and point-of-sale terminals on the store loop
  • The terminal numbers.
– Ensure the store loop cable is plugged into the loop cable socket on the Mod1 terminal displaying message W001 and that the other end of the cable is plugged into the store loop receptacle. See Figure 30 on page 476 and Figure 31 on page 476.

Is there a backup store controller connected to this store loop?
Yes No

002

– Continue at Step 011 on page 478.

003

– At the backup store controller, display the Backup Store Loop status. See "Requesting store controller status" on page 383.

Is the Backup Store Loop status "Providing Backup"?
Yes No

004

– Continue at Step 008 on page 477.

005

– At the primary store controller, display the Store Loop Control status.

The primary store controller is the controller that has been designated to control the store loop. It is supported by the backup store controller.

Is the Store Loop Control status "Controlling Loop"?
Yes No

006

– Disconnect the primary store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 30 on page 476.

Do not reconnect this store controller until the problem has been resolved.

– Continue at Step 011 on page 478.

007

Both store controllers are trying to control the store loop. This condition is caused by attaching an active store controller to the store loop when another active store controller is on the store loop.

– Disable the backup store controller. See "Requesting store controller status" on page 383.
– Wait 15 seconds and enable the backup store controller.

Return to normal store operation.

008

– Disconnect the backup store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 30 on page 476.

Do not reconnect this store controller until the problem has been resolved.

– Wait 15 seconds and observe the keyboard lights on the terminal displaying message W001.

Did the OFFLINE light go off?
Yes No

009

– Continue at Step 011 on page 478.

010

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the backup store controller to continue problem determination.

011

– To display the system message at the active store controller, press **System Request** and then press **M**.

A store controller is active when it is:
The only store controller on the store loop
or
The primary store controller and its status is “Controlling Loop”
or
The backup store controller and its status is “Providing Backup”.

Did the active store controller display message W760 or W764?
Yes No

012

– Continue at Step 018 on page 479.

013

– Note the information in the message and return to the terminal displaying message W001.
– If it is a Mod2 terminal, go to its partner Mod1. A 4683 Mod2 terminal displays the status of its partner Mod1 terminal. See Figure 23 on page 443 for the store loop layout chart.

The store controller transmits data down-loop to the first Mod1 terminal and to all the following Mod1 terminals on the store loop. Each Mod1 terminal receives its data from the Mod1 terminal or store controller up-loop from its position on the store loop.

Is this the first powered-on Mod1 terminal down-loop from the active store controller?
Yes No

014

– Continue at Step 023 on page 479.

015

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 30 on page 476.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did message W761 display?
Yes No

016

– Reconnect the Mod1 terminal to the store loop and continue at Step 051 on page 483.

017

– Continue at Step 035 on page 481.

018

Is the store loop cable plugged into the store loop adapter on the active store controller? See Figure 30 on page 476.
Yes No

019

Correct the problem by plugging the cable into the store loop adapter.

020

– Return to the Mod1 terminal displaying message W001.

On this Mod1 terminal, is the store loop cable plugged into the loop cable socket and into the store loop receptacle?
Yes No

021

Correct the problem by plugging the cable into the loop cable socket and into the store loop receptacle.

022

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

023

– Look for Mod1 terminals up-loop from this Mod1 terminal with message W001 displayed. See Figure 23 on page 443 for the store loop layout chart.

Are there any Mod1 terminals up-loop from this Mod1 terminal with message W001 displayed?
Yes No

024

– Continue at Step 030 on page 480.

025

– Return to the active store controller and check each Mod1 terminal down-loop until you find one displaying message W001.

Is this the first powered-on Mod1 terminal down-loop from the active store controller?
Yes **No**

026

– Continue at Step 030 on page 480.

027

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 30 on page 476.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did message W761 display?
Yes **No**

028

– Reconnect the Mod1 terminal to the store loop and continue at Step 051 on page 483.

029

– Continue at Step 035 on page 481.

030

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 30 on page 476.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did message W761 display?
Yes **No**

031

– Reconnect the Mod1 terminal to the store loop and continue at Step 033 on page 480.

032

– Continue at Step 035 on page 481.

033

– Go to the next powered-on Mod1 terminal up-loop from this terminal. See Figure 23 on page 443 for the store loop layout chart.
– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did message W761 display?
Yes **No**

034

– Reconnect the Mod1 terminal to the store loop and continue at Step 042 on page 481.

035

Is the store loop cable plugged into the loop cable socket on this Mod1 terminal?
Yes No

036

Correct the problem by plugging the cable into the loop cable socket.

037

- Unplug the store loop cable from the loop cable socket on this Mod1 terminal.
- Attach shorting plug 1B to the terminal-end of the cable. See Figure 31 on page 476.
- Plug the other end of the cable into the store loop receptacle.
- To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did the active store controller display message W760 or W764?
Yes No

038

- Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

039

- Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

040

Report the problem to the person responsible for repairing store loop wiring.

041

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

042

The problem is in the store loop segment between the two powered-on Mod1 terminals.

Are there any powered-off Mod1 terminals connected to the store loop segment between the two powered-on Mod1 terminals?
Yes No

043

The problem is in the store loop wiring ***or*** the store loop receptacles for the Mod1 terminals. Report the problem to the person responsible for repairing store loop wiring.

044

– One at a time, disconnect each powered-off Mod1 terminal from the store loop segment by unplugging its store loop cable from the store loop receptacle.
– After each Mod1 terminal is disconnected, return to the active store controller and display the system message by pressing **System Request** and then pressing **M**.

Did message W761 display?
Yes No

045

If all powered-off terminals have ***not*** been disconnected, continue disconnecting them and displaying the system message at the active store controller.

or

If all powered-off terminals have been disconnected, the problem is in the store loop wiring ***or*** the store loop receptacles for the Mod1 terminal terminals.

Reconnect all Mod1 terminals and report the problem to the person responsible for repairing store loop wiring.

046

– Unplug the store loop cable from the loop cable socket on the Mod1 terminal that you just disconnected from the store loop.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 31 on page 476.
– Plug the other end of the cable into the store loop receptacle.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did the active store controller display message W760 or W764?
Yes No

047

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

048

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

049
Report the problem to the person responsible for repairing store loop wiring.

050
Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

051

Is the store loop cable plugged into the store loop adapter on the active store controller? See Figure 30 on page 476.
Yes No

052
Correct the problem by plugging the cable into the store loop adapter.

053

- Disconnect the active store controller from the store loop by unplugging its store loop cable from the store loop receptacle.
- To display display the system message, press **System Request** and then press **M**.

Did message W761 display?
Yes No

054
The problem is in the active store controller, the store loop adapter, or the store loop adapter cable.
- Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

055

- Reconnect the active store controller to the store loop.

Are there any powered-off Mod1 terminals connected to the store loop segment between the Mod1 terminal displaying message W001 and the active store controller?
Yes No

056
The problem is in the store loop wiring between the active store controller and the Mod1 terminal ***or*** in the store loop receptacle for the store controller or Mod1.
Report the problem to the person responsible for repairing store loop wiring.

057

- One at a time, disconnect each powered-off Mod1 terminal from the store loop segment by unplugging its store loop cable from the store loop receptacle.
- After each Mod1 terminal is disconnected, return to the active store controller and display the system message by pressing **System Request** and then pressing **M**.

Did message W761 display?
Yes No

058

If all powered-off terminals have ***not*** been disconnected, continue disconnecting them and displaying the system message at the active store controller.

or

If all powered-off terminals have been disconnected, the problem is in the store loop wiring between the active store controller and the Mod1 terminal ***or*** in the store loop receptacle for the store controller or Mod1 terminal.

Reconnect all Mod1 terminals and report the problem to the person responsible for repairing store loop wiring.

059

- Unplug the store loop cable from the loop cable socket on the Mod1 terminal that you just disconnected from the store loop.
- Attach shorting plug 1B to the terminal-end of the cable. See Figure 31 on page 476.
- Plug the other end of the cable into the store loop receptacle.
- To return to the active store controller and display the system message, press **System Request** and then press **M**.
- Continue with Step 060 on page 484

060

Did the active store controller display message W760 or W764?
Yes No

061

- Return to the Mod1 terminal and switch power Off.

  Call for service on the 4683 base unit.

  or

  Call for service on the loop adapter.

062

- Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

063

Report the problem to the person responsible for repairing store loop wiring.

064

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

MAP 0090: W003 Message

The Mod1 terminal is not receiving store loop communications.

It beaconed and then received its own beacon.

Its store loop adapter test was run automatically and it detected no problems.

Its keyboard OFFLINE light is on.

The Mod1 terminals are now signaling that the store controller is not communicating on the loop (message W003).

The store loop appears to be OK.

The possible causes are:

- The store controller is powered Off.
- The store controller is disconnected from the store loop.
- The store controller store loop cable is failing.
- The store controller is failing.
- The Mod1 terminal is disconnected from the store loop.
- The Mod1 terminal store loop cable is failing.
- The Mod1 terminal is failing.

Figure 32 on page 486 represents a typical store loop using the IBM Loop Wiring Concentrator. Your store loop might not be wired like this, but the position of your terminals on the loop and their relationship to the store controller will be similar. The terminal numbers are shown in numeric order, but they can be put in any order on your store loop. The store controller transmits data to the first Mod1 down-loop on the store loop. This Mod1 receives the data and passes it to the next Mod1 down-loop. This continues with each Mod1 receiving data from the Mod1 immediately up-loop from its position, and passing it on to the next Mod1 down-loop. The last Mod1 down-loop passes the data back to the store controller.

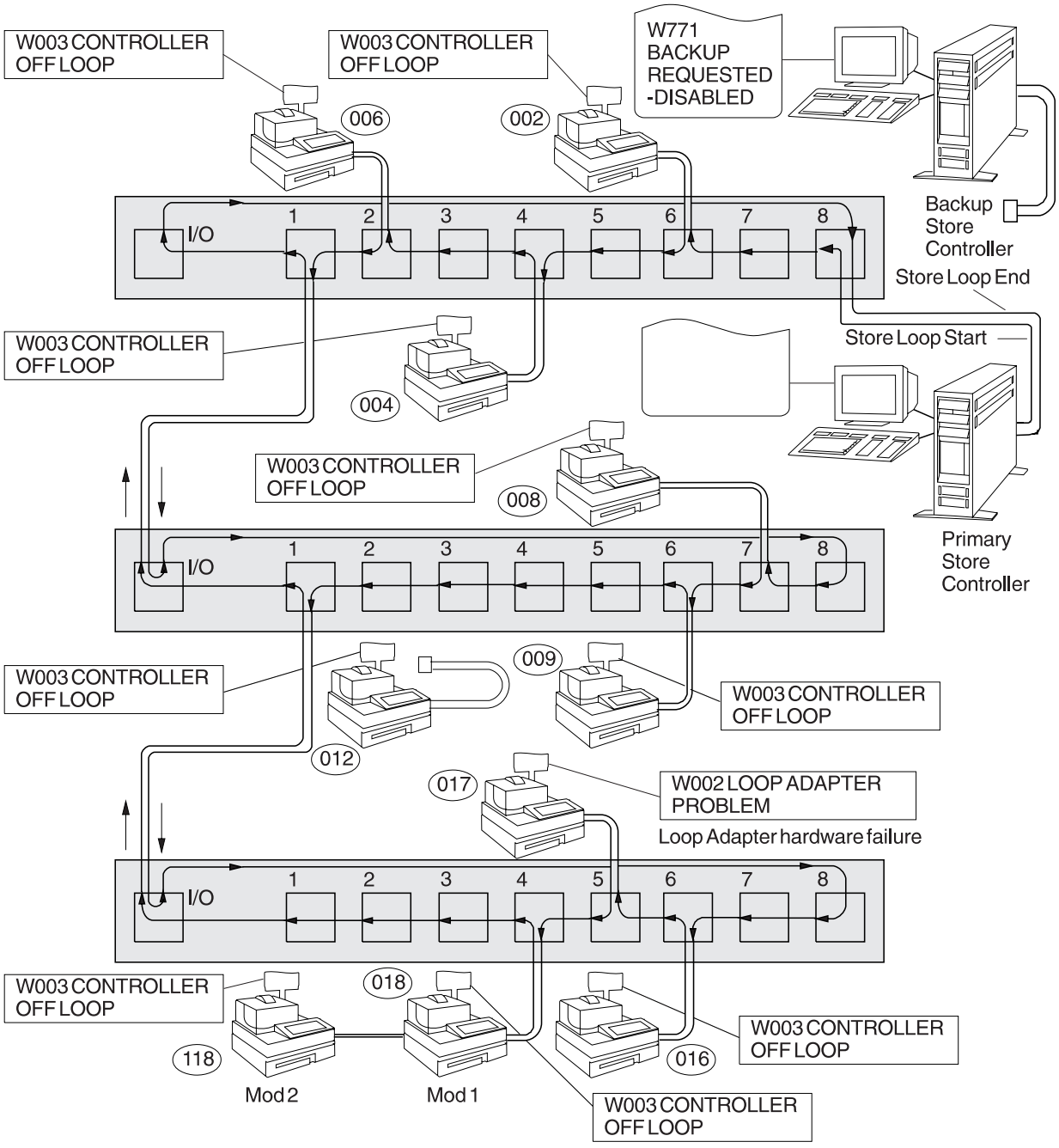


Figure 32. Store Loop with the Primary Store Controller Offline

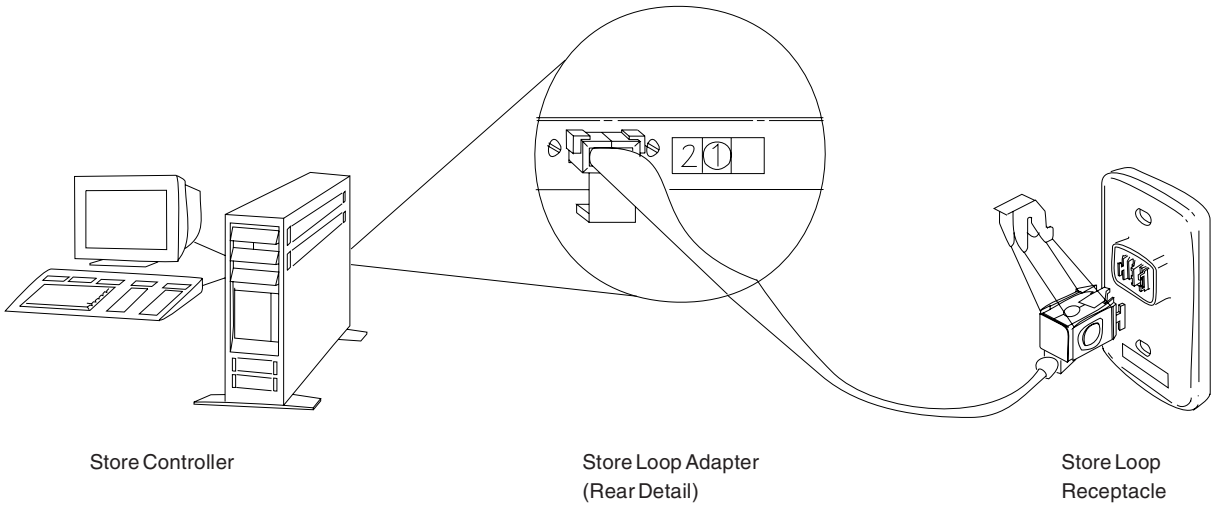


Figure 33. Store Controller Store Loop Adapter and Store Loop Receptacle

001

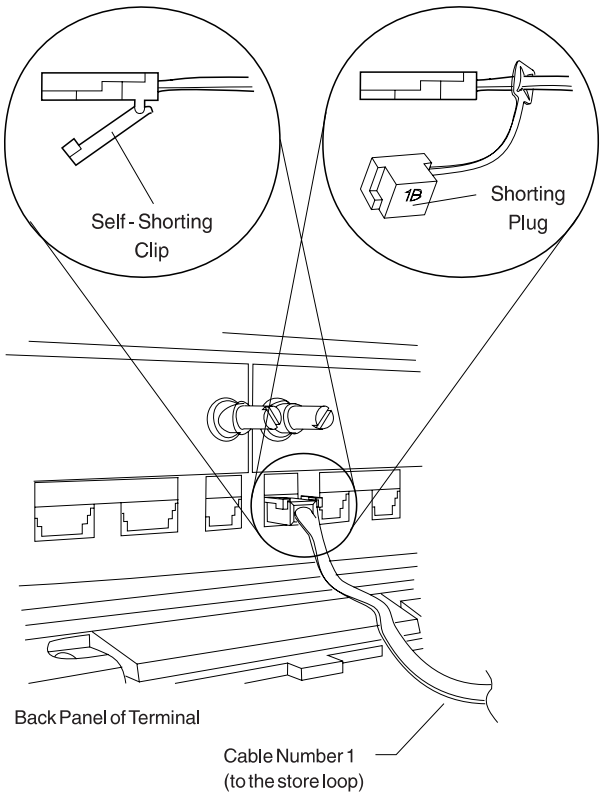


Figure 34. Mod1 Terminal Store Loop Cable 1 and Shorting Plug 1B

To display the terminal number, press **S1**, type **7**, and press **S2**.
To display messages at a point-of-sale terminal (when the keyboard OFFLINE light is on), press **S1**, type **2**, and press **S2**.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.

To display a system message at the store controller, sign on at the store controller, press **System Request** and then press **M**.

– Obtain a store loop layout chart, see Figure 23 on page 443, containing:
  • The physical location of store controllers and point-of-sale terminals
  • The order of store controllers and point-of-sale terminals on the store loop
  • The terminal numbers.
– If the terminal displaying message W003 is a Mod2, go to its partner Mod1 terminal.
– Ensure the store loop cable is plugged into the loop cable socket on the Mod1 terminal displaying message W003 and that the other end of the cable is plugged into the store loop receptacle. See Figure 33 on page 487 and Figure 34 on page 487.

On this Mod1 terminal, is the store loop cable plugged into the loop cable socket and into the store loop receptacle?

Yes **No**

002

Correct the problem by plugging the cable into the loop cable socket and the store loop receptacle.

003

Is this the only powered-on Mod1 terminal connected to the store loop?

Yes **No**

004

– Continue at Step 008 on page 489.

005

– Unplug the store loop cable from the loop cable socket on this Mod1 terminal.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 34 on page 487.
– At the Mod1 terminal, press **S1**, type **2**, and press **S2** to display the OFFLINE message.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.

Did message W003 change to message W005?

Yes **No**

006

– Switch power Off at the Mod1 terminal.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

007

– Remove shorting plug 1B from the end of the cable.
– Plug the store loop cable back into the loop cable socket.
– Continue at Step 012 on page 489.

008

Is the keyboard OFFLINE light on at any other Mod1 terminal?
Yes No

009

The Mod1 terminal displaying message W003 is failing.

– Switch power Off at the Mod1 terminal.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

010

– At the other Mod1 terminals, press **S1**, type **2**, and press **S2** to display the OFFLINE messages.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.

Did message W003 display?
Yes No

011

The Mod1 terminal displaying message W003 is failing.

– Switch power Off at the Mod1 terminal.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

012

Is there a backup store controller connected to this store loop?
Yes No

013

– Continue at Step 025 on page 491.

014

– At the backup store controller, display the Backup Store Loop status. See “Requesting store controller status” on page 383.

Is the Backup Store Loop status “Providing Backup”?
Yes No

015

– Continue at Step 019 on page 490.

016

– At the primary store controller, display the Store Loop Control status.

The primary store controller is the controller that has been designated to control the store loop. It is supported by the backup store controller.

Is the Store Loop Control status "Controlling Loop"?
Yes No

017

– Disconnect the primary store controller from the store loop by unplugging its store loop cable from the store loop receptacle.

Do not reconnect this store controller until the problem has been resolved.

– Continue at Step 025 on page 491.

018

Both store controllers are trying to control the store loop. This condition is caused by attaching an active store controller to the store loop when another active store controller is on the store loop.

– Disable the backup store controller. See "Requesting store controller status" on page 383.

– Wait 15 seconds and enable the backup store controller.

Return to normal store operation.

019

– To display the system message at the backup store controller, press **System Request** and then press **M**.

Did message W771 display?
Yes No

020

– Continue at Step 022 on page 490.

021

– Follow the *User Response* in message W771 on page on page 131.

022

Is the store loop cable on the backup store controller plugged into the store loop receptacle?
Yes No

023

Correct the problem by plugging the cable into the store loop receptacle.

024

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the backup store controller to continue problem determination.

025

A store controller is active when it is:

The only store controller on the store loop
or
The primary store controller and its status is “Controlling Loop”
or
The backup store controller and its status is “Providing Backup”.

Is the store loop cable plugged into the store loop adapter on the active store controller? See Figure 33 on page 487.

Yes **No**

026

Correct the problem by plugging the cable into the store loop adapter.

027

Is the active store controller powered On and loaded with the store controller program?

Yes **No**

028

– Continue at Step 030 on page 491.

029

– Continue at Step 032 on page 491.

030

– Switch power Off at the active store controller.
– Switch power On and load the store controller program.

Did the active store controller load the store controller program successfully?

Yes **No**

031

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

032

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

MAP 0100: W004 Message

The Mod1 terminal is receiving store loop communications from the store controller, but no responses are being received for messages that the Mod1 terminal has sent to the store controller.

The Mod1 terminal keyboard OFFLINE light is on.

The store controller can be communicating with other Mod1 terminals on the store loop.

The possible causes are:

- The store loop is open down-loop from the Mod1 terminal displaying message W004.
- A Mod1 terminal is failing down-loop.
- The Mod1 terminal store loop cable is failing.
- The Mod1 terminal is failing.
- The primary store controller is failing.
- The backup store controller is failing.
- The distance between powered-on Mod1 terminals on the store loop exceeds 1220 m (4000 ft).

Figure 35 on page 493 represents a typical store loop using the IBM Loop Wiring Concentrator. Your store loop might not be wired like this, but the position of your terminals on the loop and their relationship to the store controller will be similar. The terminal numbers are shown in numeric order, but they can be put in any order on your store loop. The store controller transmits data to the first Mod1 down-loop on the store loop. This Mod1 receives the data and passes it to the next Mod1 down-loop. This continues with each Mod1 receiving data from the Mod1 immediately up-loop from its position, and passing it on to the next Mod1 down-loop. The last Mod1 down-loop passes the data back to the store controller.

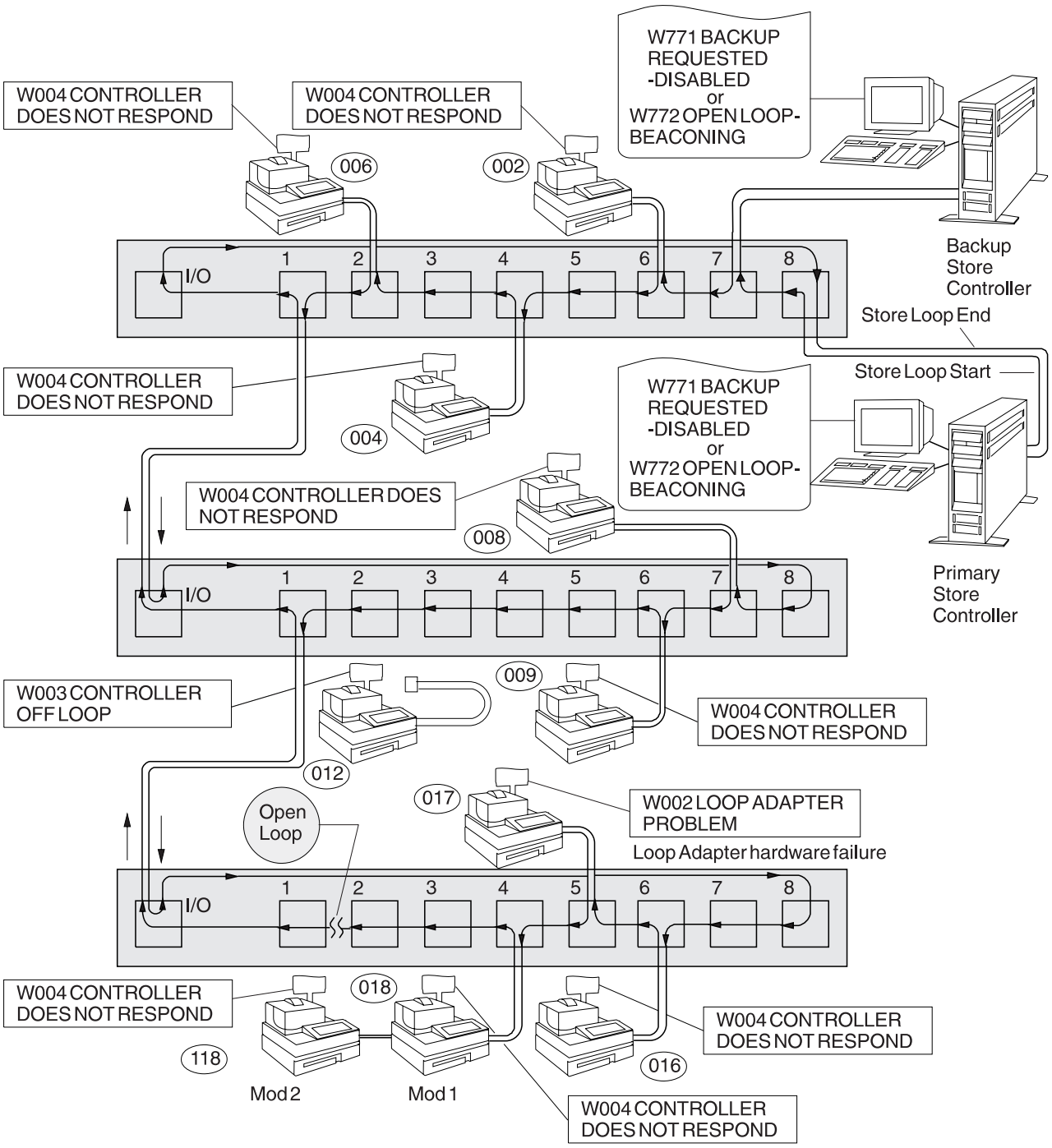


Figure 35. Store Loop with an Open Condition

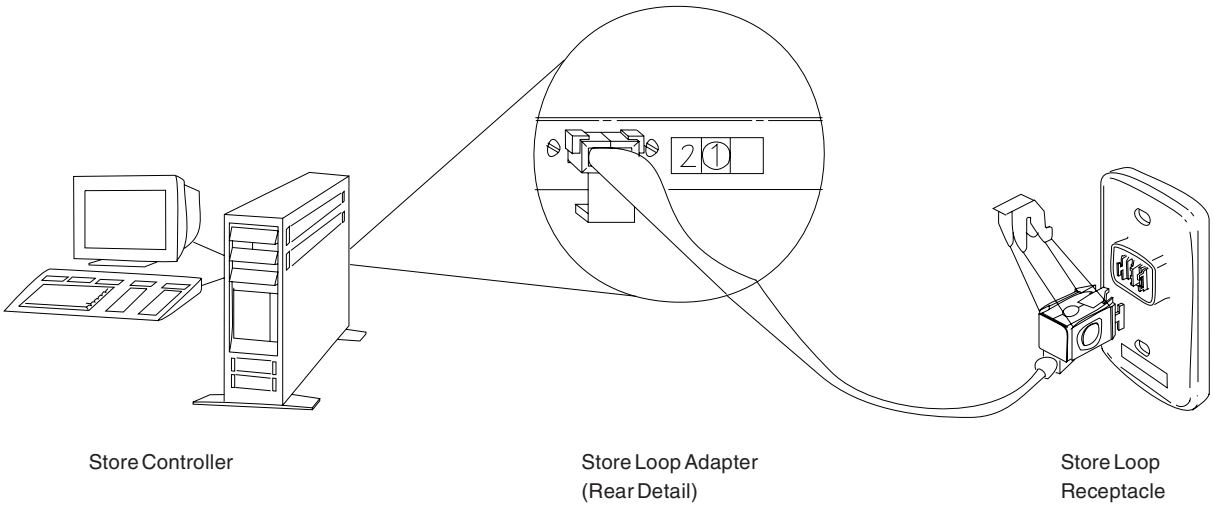


Figure 36. Store Controller Store Loop Adapter and Store Loop Receptacle

001

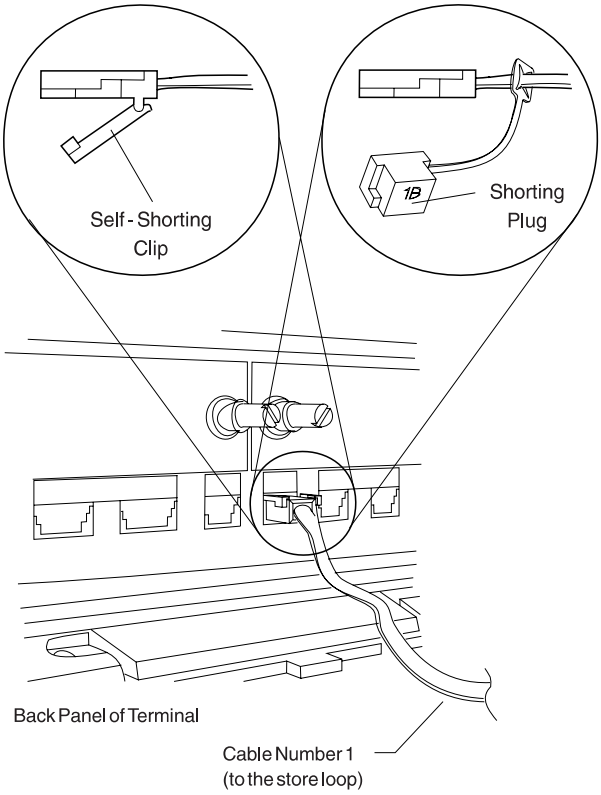


Figure 37. Mod1 Terminal Store Loop Cable 1 and Shorting Plug 1B

To display the terminal number, press **S1**, type **7**, and press **S2**.
To display messages at a point-of-sale terminal (when the keyboard OFFLINE light is on), press **S1**, type **2**, and press **S2**.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.

To display a system message at the store controller, sign on at the store controller, press **System Request** and then press **M**.

–

Obtain a store loop layout chart, see Figure 23 on page 443, containing:
- The physical location of store controllers and point-of-sale terminals
- The order of store controllers and point-of-sale terminals on the store loop
- The terminal numbers.

Is there a backup store controller connected to this store loop?
Yes No

002

– Continue at Step 011 on page 496.

003

– At the backup store controller, display the Backup Store Loop status. See “Requesting store controller status” on page 383.

Is the Backup Store Loop status “Providing Backup”?
Yes No

004

– Continue at Step 008 on page 495.

005

– At the primary store controller, display the Store Loop Control status.

The primary store controller is the controller that has been designated to control the store loop. It is supported by the backup store controller.

Is the Store Loop Control status “Controlling Loop”?
Yes No

006

– Disconnect the primary store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 36 on page 494.

Do not reconnect this store controller until the problem has been resolved.

– Continue at Step 011 on page 496.

007

Both store controllers are trying to control the store loop. This condition is caused by attaching an active store controller to the store loop when another active store controller is on the store loop.

– Disable the backup store controller. See “Requesting store controller status” on page 383.
– Wait 15 seconds and enable the backup store controller.

Return to normal store operation.

008

– Disconnect the backup store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 36 on page 494.

Do not reconnect this store controller until the problem has been resolved.

– Wait 15 seconds and observe the keyboard lights on the Mod1 terminal displaying message W004.

Did the OFFLINE light go off?
Yes No

009

– Continue at Step 011 on page 496.

010

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the backup store controller to continue problem determination.

011

– To display the system message at the active store controller, press **System Request** and then press **M**.

A store controller is active when it is:
The only store controller on the store loop
or
The primary store controller and its status is “Controlling Loop”
or
The backup store controller and its status is “Providing Backup”.

Did the active store controller display message W760 or W764?
Yes No

012

– Continue at Step 041 on page 500.

013

Did message W760 display?
Yes No

014

– Continue at Step 016 on page 496.

015

Follow “MAP 0070: Store Loop Problem” on page 473.

016

– Return to the terminal displaying message W004. If it is a Mod2 terminal, go to its partner Mod1. A 4683 Mod2 terminal displays the status of its partner Mod1 terminal. See Figure 23 on page 443 for the store loop layout chart.

A Mod1 terminal is considered active if it has a terminal number, is powered On, and attached to the store loop.

Is this the last active Mod1 terminal on the store loop?
Yes No

017

– Go to the last active Mod1 terminal on the store loop. See Figure 23 on page 443 for the store loop layout chart.
– Continue at Step 018 on page 497.

018

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did message W761 display?
Yes No

019

– Reconnect the Mod1 terminal to the store loop and continue at Step 027 on page 498.

020

Is the store loop cable plugged into the loop cable socket on this Mod1 terminal? See Figure 37 on page 494.
Yes No

021

Correct the problem by plugging the cable into the loop cable socket.

022

– Unplug the store loop cable from the loop cable socket on this Mod1 terminal.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 37 on page 494.
– Plug the other end of the cable into the store loop receptacle.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did the active store controller display message W760 or W764?
Yes No

023

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

024

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

025

Report the problem to the person responsible for repairing store loop wiring.

026

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

027

Are there any powered-off Mod1 terminals connected to the store loop segment between the Mod1 terminal that you just reconnected and the active store controller?
Yes No

028

– Continue at Step 036 on page 499.

029

– One at a time, disconnect each powered-off Mod1 terminal from the store loop segment by unplugging its store loop cable from the store loop receptacle.
– After each Mod1 terminal is disconnected, return to the active store controller and display the system message by pressing **System Request** and then pressing **M**.

Did message W761 display?
Yes No

030

If all powered-off terminals have ***not*** been disconnected, continue disconnecting them and displaying the system message at the active store controller.

or

If all powered-off terminals have been disconnected, reconnect all of them and continue at Step 036 on page 499.

031

– Unplug the store loop cable from the loop cable socket on the Mod1 terminal that you just disconnected from the store loop.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 37 on page 494.
– Plug the other end of the cable into the store loop receptacle.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did the active store controller display message W760 or W764?
Yes No

032

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

033

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

034

Report the problem to the person responsible for repairing store loop wiring.

035

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

036

Is the store loop cable plugged into the store loop adapter on the active store controller? See Figure 36 on page 494.
Yes No

037

Correct the problem by plugging the cable into the store loop adapter.

038

– Disconnect the active store controller from the store loop by unplugging its store loop cable from the store loop receptacle.
– To display the system message at the active store controller, press **System Request** and then press **M**.

Did message W761 display?
Yes No

039

The problem is in the active store controller, the store loop adapter, or the store loop adapter cable.

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

040

– Reconnect the active store controller to the store loop.

The problem is in the store loop wiring between the active store controller and the last active Mod1 terminal ***or*** in the store loop receptacle for the store controller or Mod1 terminal.
Report the problem to the person responsible for repairing store loop wiring.

041

– Return to the terminal displaying message W004. If it is a Mod2 terminal, go to its partner Mod1. A 4683 Mod2 terminal displays the status of its partner Mod1. See Figure 23 on page 443 for the store loop layout chart.
– Switch power Off at the Mod1 terminal.
– Wait five seconds and switch power On again.
– Wait at least two minutes for the Mod1 terminal to become operational.

Is the keyboard OFFLINE light still on?
Yes No

042

The Mod1 terminal is operating correctly now.

– If the problem returns, record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

043

– At the Mod1 terminal, press **S1**, type **2**, and press **S2** to display the OFFLINE message.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.

Is message W004 still displayed?
Yes No

044

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

045

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

MAP 0110: W005 Message

The Mod1 terminal is not receiving store loop communications.

The Mod1 terminal store loop adapter test was run automatically and it detected no problems.

It is sending beacons but not receiving beacons.

The Mod1 terminal keyboard OFFLINE light is on.

The possible causes are:

- The store loop is open up-loop from the Mod1 terminal displaying message W005.
- A Mod1 terminal is failing up-loop.
- The Mod1 terminal store loop cable is failing.
- The Mod1 terminal is failing.
- The primary store controller is failing.
- The backup store controller is failing.
- The distance between powered-on Mod1 terminals on the store loop exceeds 1220 m (4000 ft).

Figure 38 on page 502 represents a typical store loop using the IBM Loop Wiring Concentrator. Your store loop may not be wired like this, but the position of your terminals on the loop and their relationship to the store controller will be similar. The terminal numbers are shown in numeric order, but they can be put in any order on your store loop. The store controller transmits data to the first Mod1 down-loop on the store loop. This Mod1 receives the data and passes it to the next Mod1 down-loop. This continues with each Mod1 receiving data from the Mod1 immediately up-loop from its position, and passing it on to the next Mod1 down-loop. The last Mod1 down-loop passes the data back to the store controller.

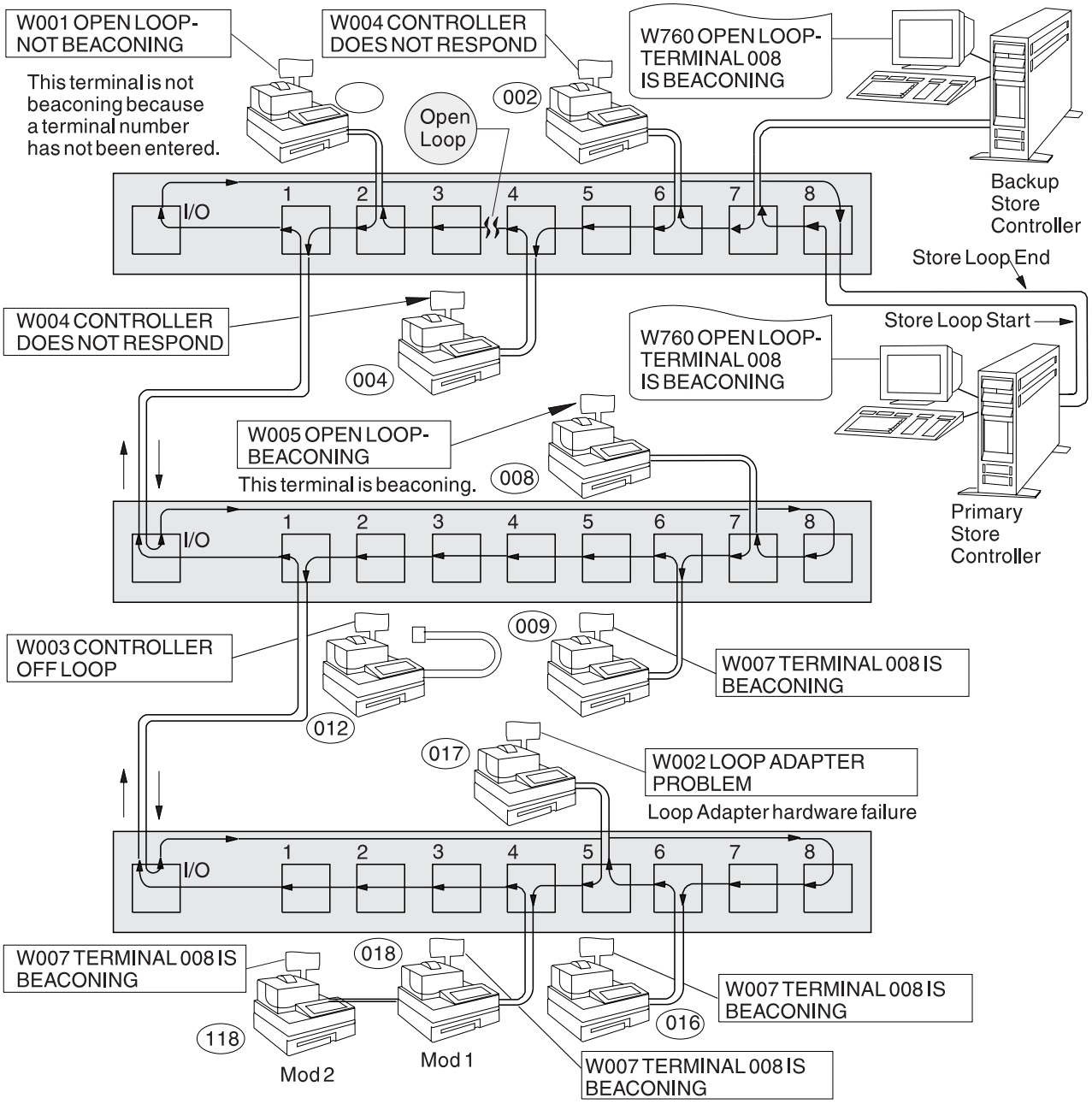


Figure 38. Store Loop with an Open Condition

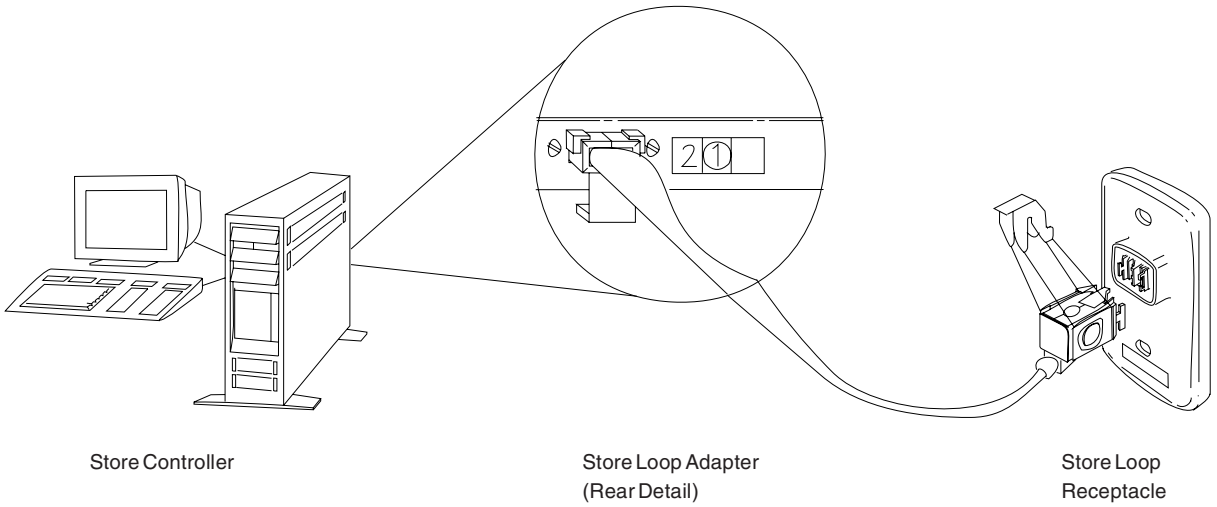


Figure 39. Store Controller Store Loop Adapter and Store Loop Receptacle

001

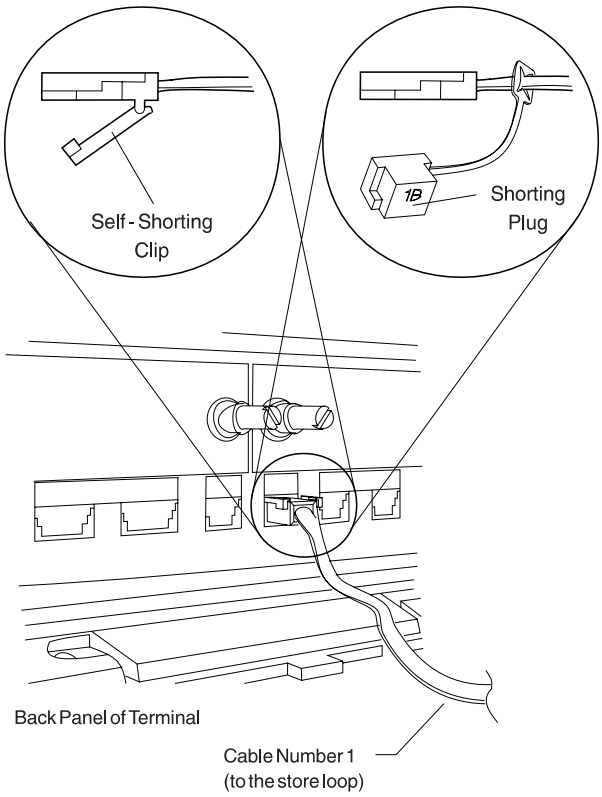


Figure 40. Mod1 Terminal Store Loop Cable 1 and Shorting Plug 1B

To display the terminal number, press **S1**, type **7**, and press **S2**.
To display messages at a point-of-sale terminal (when the keyboard OFFLINE light is on), press **S1**, type **2**, and press **S2**.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.

To display a system message at the store controller, sign on at the store controller, press **System Request** and then press **M**.

– Obtain a store loop layout chart, see Figure 23 on page 443, containing:
  • The physical location of store controllers and point-of-sale terminals
  • The order of store controllers and point-of-sale terminals on the store loop
  • The terminal numbers.
– Ensure the store loop cable is plugged into the loop cable socket on the Mod1 terminal displaying message W005 and that the other end of the cable is plugged into the store loop receptacle. See Figure 39 on page 503 and Figure 40 on page 503.

Is there a backup store controller connected to this store loop?
Yes No

002

– Continue at Step 011 on page 505.

003

– At the backup store controller, display the Backup Store Loop status. See "Requesting store controller status" on page 383.

Is the Backup Store Loop status "Providing Backup"?
Yes No

004

– Continue at Step 008 on page 504.

005

– At the primary store controller, display the Store Loop Control status.

The primary store controller is the controller that has been designated to control the store loop. It is supported by the backup store controller.

Is the Store Loop Control status "Controlling Loop"?
Yes No

006

– Disconnect the primary store controller from the store loop by unplugging its store loop cable from the store loop receptacle.

Do not reconnect this store controller until the problem has been resolved.

– Continue at Step 011 on page 505.

007

Both store controllers are trying to control the store loop. This condition is caused by attaching an active store controller to the store loop when another active store controller is on the store loop.

– Disable the backup store controller. See "Requesting store controller status" on page 383.
– Wait 15 seconds and enable the backup store controller.

Return to normal store operation.

008

– Disconnect the backup store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 39 on page 503.

Do not reconnect this store controller until the problem has been resolved.

– Wait 15 seconds and observe the keyboard lights on the Mod1 terminal that was displaying message W005.

Did the OFFLINE light go off?
Yes No

009

– Continue at Step 011 on page 505.

010

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the backup store controller to continue problem determination.

011

– To display the system message at the active store controller, press **System Request** and then press **M**.

A store controller is active when it is:
The only store controller on the store loop
or
The primary store controller and its status is “Controlling Loop”
or
The backup store controller and its status is “Providing Backup”.

Did the active store controller display message W760 or W764?
Yes No

012

– Continue at Step 018 on page 506.

013

– Note the information in the message and return to the terminal displaying message W005.
– If it is a Mod2 terminal, go to its partner Mod1. A 4683 Mod2 terminal displays the status of its partner Mod1. See Figure 23 on page 443 for the store loop layout chart.

The store controller transmits data down-loop to the first Mod1 terminal and to all the following Mod1 terminals on the store loop. Each Mod1 terminal receives its data from the Mod1 or store controller up-loop from its position on the store loop.

Is this the first powered-on Mod1 terminal down-loop from the active store controller?
Yes No

014

– Continue at Step 023 on page 506.

015

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 39 on page 503.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did message W761 display?
Yes No

016

– Reconnect the Mod1 terminal to the store loop and continue at Step 052 on page 510.

017

– Continue at Step 036 on page 508.

018

Is the store loop cable plugged into the store loop adapter on the active store controller? See Figure 39 on page 503.
Yes No

019

Correct the problem by plugging the cable into the store loop adapter.

020

– Return to the Mod1 terminal displaying message W005.

On this Mod1 terminal, is the store loop cable plugged into the loop cable socket and into the store loop receptacle?
Yes No

021

Correct the problem by plugging the cable into the loop cable socket and the store loop receptacle.

022

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

023

– Go to the next powered-on Mod1 terminal up-loop from this Mod1. See Figure 23 on page 443 for the store loop layout chart.

Is U003 displayed?
Yes No

024

– Continue at Step 026 on page 507.

025

Return to Step 023 on page 506 and continue up-loop from this terminal.

026

Is the keyboard OFFLINE light on?
Yes No

027

– Continue at Step 031 on page 507.

028

– At the Mod1 terminal, press **S1**, type **2**, and press **S2** to display the OFFLINE message.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.

Did message W001 display?
Yes No

029

– Continue at Step 031 on page 507.

030

Return to Step 023 on page 506 and continue up-loop from this Mod1 terminal.

031

– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did message W761 display?
Yes No

032

– Reconnect the Mod1 terminal to the store loop and continue at 507.

033

– Continue at Step 036 on page 508.

034

– Go to the next powered-on Mod1 terminal down-loop from this Mod1. See Figure 23 on page 443 for the store loop layout chart.
– Disconnect this Mod1 terminal from the store loop by unplugging its store loop cable from the store loop receptacle.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did message W761 display?
Yes **No**

035

– Reconnect the Mod1 terminal to the store loop and continue at Step 043 on page 509.

036

Is the store loop cable plugged into the loop cable socket on this Mod1 terminal?
Yes **No**

037

Correct the problem by plugging the cable into the loop cable socket.

038

– Unplug the store loop cable from the loop cable socket on this Mod1 terminal.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 40 on page 503.
– Plug the other end of the cable into the store loop receptacle.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did the active store controller display message W760 or W764?
Yes **No**

039

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

040

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

041
Report the problem to the person responsible for repairing store loop wiring.

042
Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

043

Are there any powered-off Mod1 terminals connected to the store loop segment between the two powered-on Mod1 terminals?
Yes No

044
The problem is in the store loop wiring ***or*** the store loop receptacles for the Mod1 terminals. Report the problem to the person responsible for repairing store loop wiring.

045

- One at a time, disconnect each powered-off Mod1 terminal from the store loop segment by unplugging its store loop cable from the store loop receptacle.
- After each Mod1 terminal is disconnected, return to the active store controller and display the system message by pressing **System Request** and then pressing **M**.

Did message W761 display?
Yes No

046
If all powered-off terminals have ***not*** been disconnected, continue disconnecting them and displaying the system message at the active store controller.

or

If all powered-off terminals have been disconnected, the problem is in the store loop wiring ***or*** the store loop receptacles for the Mod1 terminals.

Reconnect all Mod1 terminals and report the problem to the person responsible for repairing store loop wiring.

047

- Unplug the store loop cable from the loop cable socket on the Mod1 terminal that you just disconnected from the store loop.
- Attach shorting plug 1B to the terminal-end of the cable. See Figure 40 on page 503.
- Plug the other end of the cable into the store loop receptacle.
- To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did the active store controller display message W760 or W764?
Yes **No**

048

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

049

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes **No**

050

Report the problem to the person responsible for repairing store loop wiring.

051

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

052

Is the store loop cable plugged into the store loop adapter on the active store controller? See Figure 39 on page 503.
Yes **No**

053

Correct the problem by plugging the cable into the store loop adapter.

054

– Disconnect the active store controller from the store loop by unplugging its store loop cable from the store loop receptacle.
– To display the system message at the active store controller, press **System Request** and then press **M**.

Did message W761 display?
Yes **No**

055

The problem is in the active store controller, the store loop adapter, or the store loop adapter cable.

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

056

– Reconnect the active store controller to the store loop.

Are there any powered-off Mod1 terminals connected to the store loop segment between the Mod1 terminal displaying message W005 and the active store controller?
Yes **No**

057

– The problem is in the store loop wiring between the active store controller and the Mod1 terminal ***or*** in the store loop receptacle for the store controller or Mod1.

Report the problem to the person responsible for repairing store loop wiring.

058

– One at a time, disconnect each powered-off Mod1 terminal from the store loop segment by unplugging its store loop cable from the store loop receptacle.
– After each Mod1 terminal is disconnected, return to the active store controller and display the system message by pressing **System Request** and then pressing **M**.

Did message W761 display?
Yes **No**

059

If all powered-off terminals have ***not*** been disconnected, continue disconnecting them and displaying the system message at the active store controller.

or

If all powered-off terminals have been disconnected, the problem is in the store loop wiring between the active store controller and the Mod1 terminal ***or*** in the store loop receptacle for the store controller or Mod1 terminal.

Reconnect all Mod1 terminals and report the problem to the person responsible for repairing store loop wiring.

060

– Unplug the store loop cable from the loop cable socket on the Mod1 terminal that you just disconnected from the store loop.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 40 on page 503.
– Plug the other end of the cable into the store loop receptacle.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.
– Continue at Step 061 on page 511.

061

Did the active store controller display message W760 or W764?
Yes **No**

062

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

063

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

064

Report the problem to the person responsible for repairing store loop wiring.

065

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

MAP 0120: W762 Message

The terminal number in this W762 message does not respond to messages sent to it by the store controller.

The active store controller is receiving end-of-polls.

The active store controller is **not** receiving beacons.

The store loop appears to be OK.

The possible causes are:

- The Mod1 terminal might be powered Off (terminal number displayed in message W762).
- The Mod1 terminal might be offline (terminal number displayed in message W762).
- The Mod1 terminal is failing (terminal number displayed in message W762).
- The primary store controller is failing.
- The backup store controller is failing.
- The distance between powered-on Mod1 terminals on the store loop exceeds 1220 m (4000 ft).

Figure 41 on page 514 represents a typical store loop using the IBM Loop Wiring Concentrator. Your store loop might not be wired like this, but the position of your terminals on the loop and their relationship to the store controller will be similar. The store controller transmits data to the first terminal down-loop on the store loop. This terminal receives the data and passes it to the next terminal down-loop. This continues with each terminal receiving data from the terminal immediately up-loop from its position, and passing it on to the next terminal down-loop. The last terminal down-loop passes the data back to the store controller.

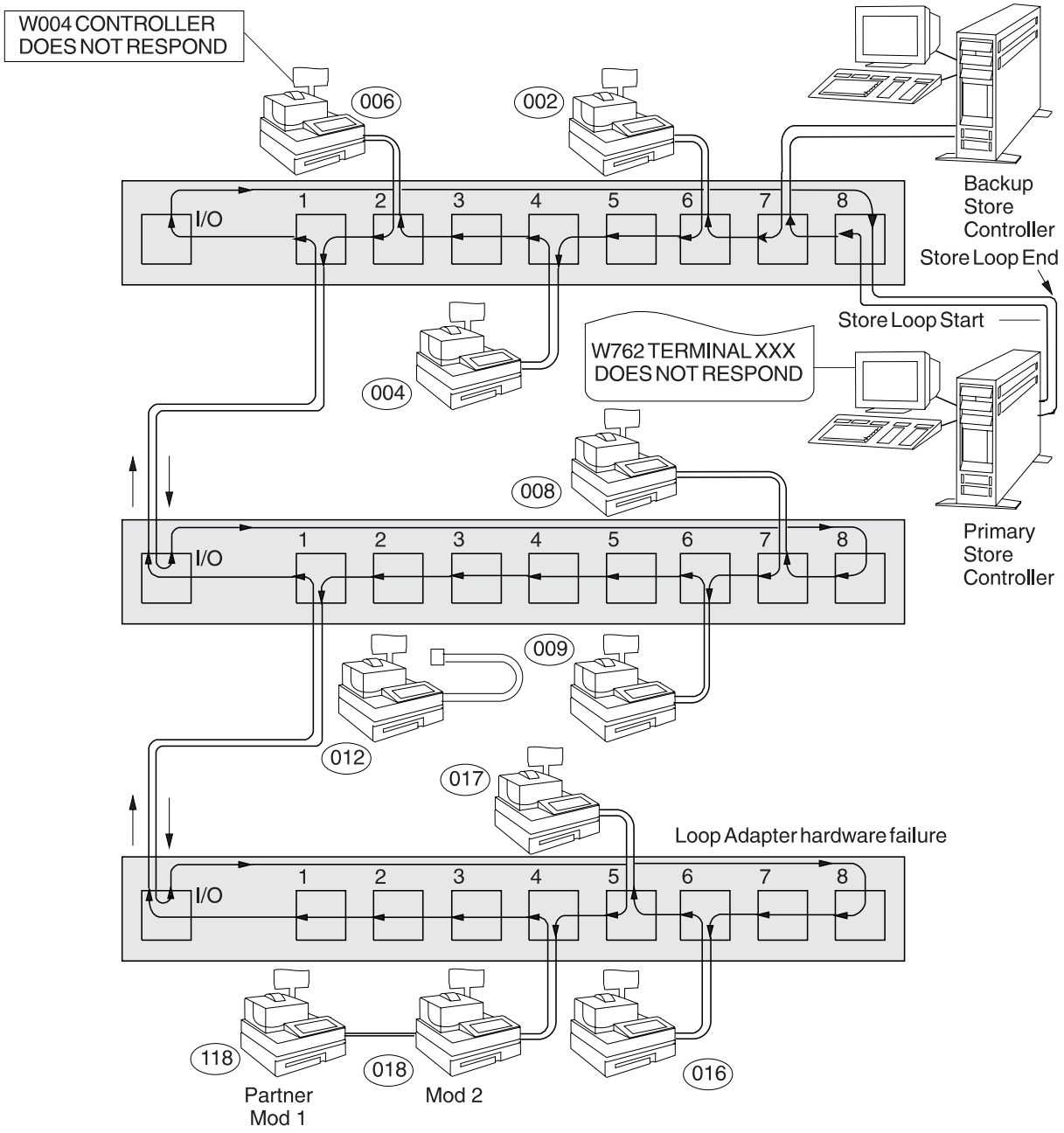


Figure 41. Store Loop with a Failing Point-of-Sale Terminal

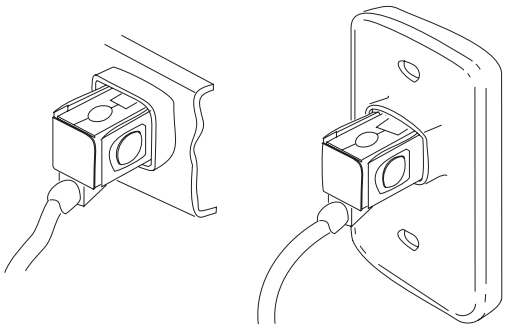


Figure 42. Typical Store Loop Receptacles

001

To display the terminal number, press **S1**, type **7**, and press **S2**.
To display messages at a point-of-sale terminal (when the keyboard OFFLINE light is on), press **S1**, type **2**, and press **S2**.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.
To display a system message at the store controller, sign on at the store controller, press **System Request** and then press **M**.

– Obtain a store loop layout chart, see Figure 23 on page 443, containing:
  • The physical location of store controllers and point-of-sale terminals
  • The order of store controllers and point-of-sale terminals on the store loop
  • The terminal numbers.

Is there a backup store controller connected to this store loop?
Yes No

002

– Continue at Step 011 on page 516.

003

– At the backup store controller, display the Backup Store Loop status. See “Requesting store controller status” on page 383.

Is the Backup Store Loop status “Providing Backup”?
Yes No

004

– Continue at Step 008 on page 516.

005

– At the primary store controller, display the Store Loop Control status.

The primary store controller is the controller that has been designated to control the store loop. It is supported by the backup store controller.

Is the Store Loop Control status "Controlling Loop"?
Yes No

006

– Disconnect the primary store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 42 on page 515.

Do not reconnect this store controller until the problem has been resolved.

– Continue at Step 011 on page 516.

007

Both store controllers are trying to control the store loop. This condition is caused by attaching an active store controller to the store loop when another active store controller is on the store loop.

– Disable the backup store controller. See "Requesting store controller status" on page 383.
– Wait 15 seconds and enable the backup store controller.

Return to normal store operation.

008

– Disconnect the backup store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 42 on page 515.

Do not reconnect this store controller until the problem has been resolved.

– Wait 15 seconds and observe the keyboard lights on the terminal that was displaying message W762.

Did the OFFLINE light go off?
Yes No

009

– Continue at Step 011 on page 516.

010

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the backup store controller to continue problem determination.

011

– To display the system message at the active store controller, press **System Request** and then press **M**.

A store controller is active when it is:
The only store controller on the store loop
or
The primary store controller and its status is "Controlling Loop"
or
The backup store controller and its status is "Providing Backup".

Did the active store controller display message W760 or W764?
Yes No

012

– Continue at Step 015 on page 517.

013

Did message W761 display also?
Yes No

014

For message W760, follow “MAP 0070: Store Loop Problem” on page 473.

or

For message W764, follow “MAP 0130: W764 Message” on page 518.

015

- Go to the terminal that has the terminal number displayed in message W762. If it is a Mod2 terminal, go to its partner Mod1. A 4683 Mod2 terminal displays the status of its partner Mod1. See Figure 23 on page 443 for the store loop layout chart.
- Switch power Off at the Mod1 terminal.
- Wait five seconds and switch power On again.

Did the Mod1 terminal IPL correctly?
Yes No

016

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

017

- Wait at least two minutes for the terminal to become operational.
- To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did the active store controller display message W762 again?
Yes No

018

The terminal is operating correctly now.

- If the problem returns, record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

019

- Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

MAP 0130: W764 Message

The active store controller is transmitting store loop polls but it is not receiving end-of-polls or beacons.

The possible causes are:

- The store loop is open down-loop from the last active Mod1 terminal.
- An inactive Mod1 terminal is failing down-loop from the last active Mod1 terminal.
- The store loop cable is failing on the last active Mod1 terminal.
- The last active Mod1 terminal is failing.
- The store loop cable is failing on the active store controller.
- The active store controller is failing.
- The distance between the last active Mod1 terminal and the active store controller exceeds 1220 m (4000 ft).

Figure 43 on page 519 represents a typical store loop using the IBM Loop Wiring Concentrator. Your store loop might not be wired like this, but the position of your terminals on the loop and their relationship to the store controller will be similar. The terminal numbers are shown in numeric order, but they can be put in any order on your store loop. The store controller transmits data to the first terminal down-loop on the store loop. This terminal receives the data and passes it to the next terminal down-loop. This continues with each terminal receiving data from the terminal immediately up-loop from its position, and passing it on to the next terminal down-loop. The last terminal down-loop passes the data back to the store controller.

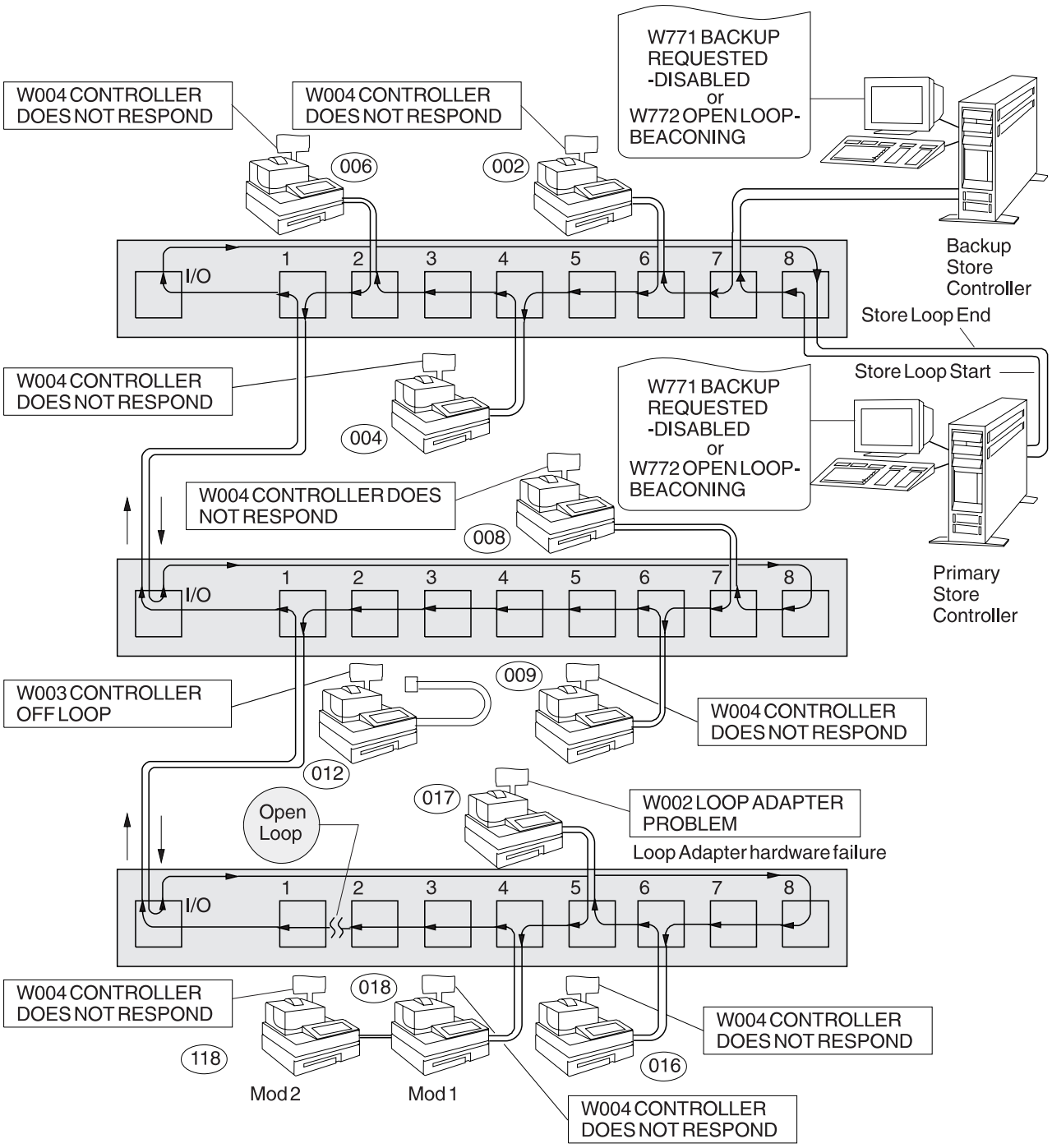


Figure 43. Store Loop with an Open Condition

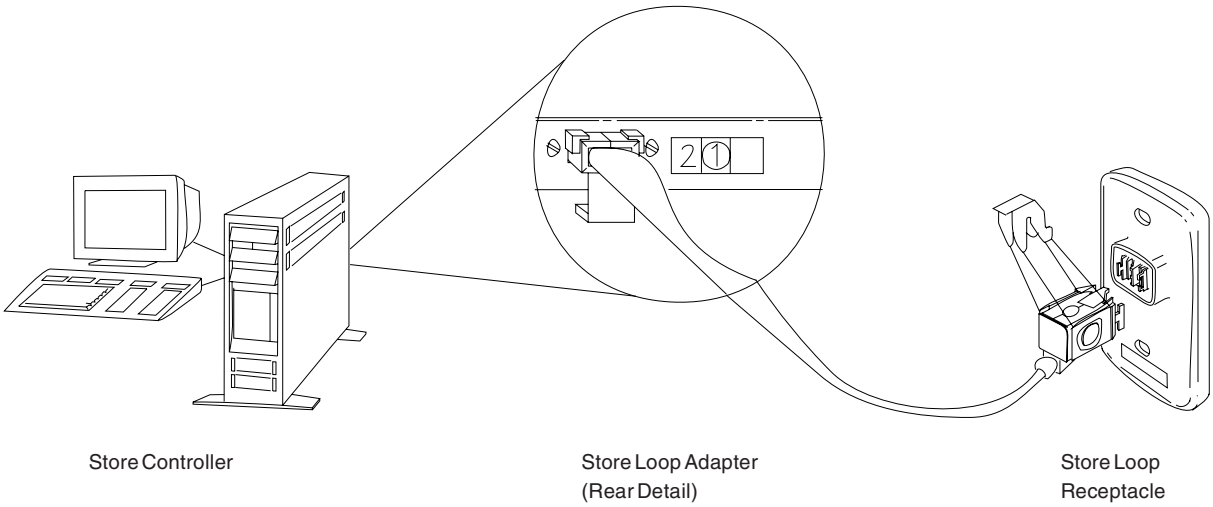


Figure 44. Store Controller Store Loop Adapter and Store Loop Receptacle

001

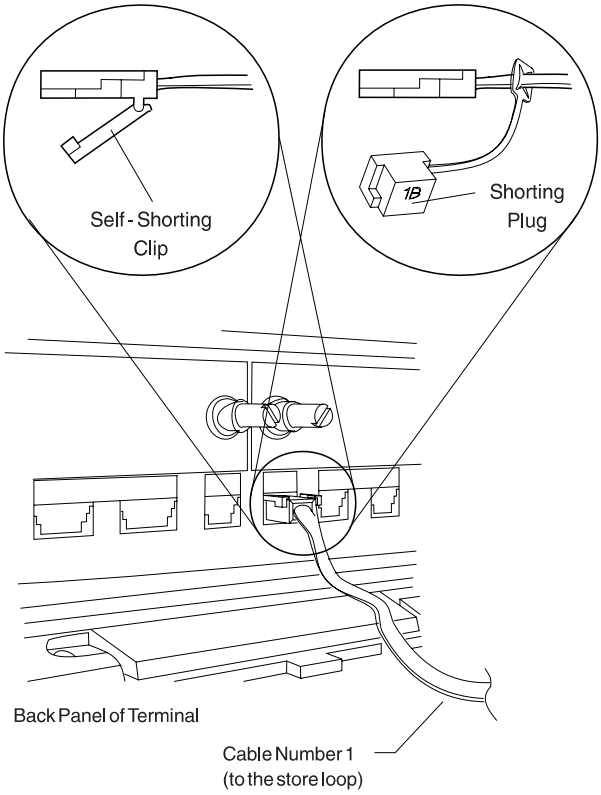


Figure 45. Mod1 Terminal Store Loop Cable 1 and Shorting Plug 1B

To display the terminal number, press **S1**, type **7**, and press **S2**.
To display messages at a point-of-sale terminal (when the keyboard OFFLINE light is on), press **S1**, type **2**, and press **S2**.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.

To display a system message at the store controller, sign on at the store controller, press **System Request** and then press **M**.

– Obtain a store loop layout chart, see Figure 23 on page 443, containing:
  • The physical location of store controllers and point-of-sale terminals
  • The order of store controllers and point-of-sale terminals on the store loop
  • The terminal numbers.

Is there a backup store controller connected to this store loop?
Yes No

002

– Continue at Step 011 on page 522.

003

– At the backup store controller, display the Backup Store Loop status. See "Requesting store controller status" on page 383.

Is the Backup Store Loop status "Providing Backup"?
Yes No

004

– Continue at Step 008 on page 521.

005

– At the primary store controller, display the Store Loop Control status.

The primary store controller is the controller that has been designated to control the store loop. It is supported by the backup store controller.

Is the Store Loop Control status "Controlling Loop"?
Yes No

006

– Disconnect the primary store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 44 on page 520.

Do not reconnect this store controller until the problem has been resolved.

– Continue at Step 011 on page 522.

007

Both store controllers are trying to control the store loop. This condition is caused by attaching an active store controller to the store loop when another active store controller is on the store loop.

– Disable the backup store controller. See "Requesting store controller status" on page 383.
– Wait 15 seconds and enable the backup store controller.

Return to normal store operation.

008

– Disconnect the backup store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 44 on page 520.

Do not reconnect this store controller until the problem has been resolved.

– Wait 15 seconds. To display the system message at the primary store controller, press **System Request** and then press **M**.

Did message W761 display?
Yes **No**

009

– Continue at Step 011 on page 522.

010

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the backup store controller to continue problem determination.

011

Are there any Mod1 terminals connected to the store loop?
Yes **No**

012

– Continue at Step 036 on page 525.

013

– Go to the *last active* Mod1 terminal on the store loop. See Figure 23 on page 443 for the store loop layout chart.

A terminal is considered active if it has a terminal number, is powered On, and attached to the store loop.

– Disconnect this terminal from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 44 on page 520.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did message W761 display?
Yes **No**

014

– Reconnect the Mod1 terminal to the store loop and continue at Step 022 on page 523.

015

Is the store loop cable plugged into the loop cable socket on this Mod1 terminal?
Yes **No**

016

Correct the problem by plugging the cable into the loop cable socket.

017

– Unplug the store loop cable from the loop cable socket on this Mod1 terminal.
– Attach shorting plug 1B to the terminal-end of the cable. See Figure 45 on page 520.
– Plug the other end of the cable into the store loop receptacle.
– To return to the active store controller and display the system message, press **System Request** and then press **M**.

Did the active store controller display message W760 or W764?
Yes No

018

– Return to the Mod1 terminal and switch power Off.

Call for service on the 4683 base unit.

or

Call for service on the loop adapter.

019

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

020

Report the problem to the person responsible for repairing store loop wiring.

021

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

022

Is the store loop cable plugged into the store loop adapter on the active store controller? See Figure 44 on page 520.
Yes No

023

Correct the problem by plugging the cable into the store loop adapter.

024

– Disconnect the active store controller from the store loop by unplugging its store loop cable from the store loop receptacle.
– To display the system message at the active store controller, press **System Request** and then press **M**.

Did message W761 display?
Yes No

025

The problem is in the active store controller, the store loop adapter, or the store loop adapter cable.

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

026

– Reconnect the active store controller to the store loop.

Are there any powered-off Mod1 terminals connected to the store loop segment between the Mod1 terminal that you reconnected in Step 014 on page 522 and the active store controller?
Yes No

027

The problem is in the store loop wiring between the active store controller and the last active Mod1 terminal ***or*** in the store loop receptacle for the store controller or the Mod1 terminal.
Report the problem to the person responsible for repairing store loop wiring.

028

- One at a time, disconnect each powered-off Mod1 terminal from the store loop segment by unplugging its store loop cable from the store loop receptacle.
- After each Mod1 terminal is disconnected, return to the active store controller and display the system message by pressing **System Request** and then pressing **M**.

Did message W761 display?
Yes No

029

If all powered-off terminals have ***not*** been disconnected, continue disconnecting them and displaying the system message at the active store controller.

or

If all powered-off terminals have been disconnected, the problem is in the store loop wiring between the active store controller and the Mod1 terminal that you reconnected in Step 014 on page 522 ***or*** in the store loop receptacle for the store controller or Mod1 terminal.

Reconnect all Mod1 terminals and report the problem to the person responsible for repairing store loop wiring.

030

- Unplug the store loop cable from the loop cable socket on the Mod1 terminal that you just disconnected from the store loop.
- Attach shorting plug 1B to the terminal-end of the cable. See Figure 45 on page 520.
- Plug the other end of the cable into the store loop receptacle.
- To return to the active store controller and display the system message, press **System Request** and then press **M**.
- Continue at Step 031 on page 524

031

Did the active store controller display message W760 or W764?
Yes No

032

- Return to the Mod1 terminal and switch power Off.

Call for service on the terminal base unit.

or

Call for service on the loop adapter.

033

– Return to the Mod1 terminal and examine its store loop receptacle for damage.

Is the store loop receptacle OK?
Yes No

034

Report the problem to the person responsible for repairing store loop wiring.

035

Correct the problem by exchanging the store loop cable attached to the Mod1 terminal.

036

Is the store loop cable plugged into the store loop adapter on the active store controller? See Figure 44 on page 520.
Yes No

037

Correct the problem by plugging the store loop cable into the store loop adapter.

038

– Disconnect the active store controller from the store loop by unplugging its store loop cable from the store loop receptacle.
– To display the system message at the active store controller, press **System Request** and then press **M**.

Did message W761 display?
Yes No

039

The problem is in the active store controller, the store loop adapter, or the store loop adapter cable.

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the active store controller to continue problem determination.

040

– Reconnect the active store controller to the store loop.

The problem is in the store loop wiring ***or*** the store loop receptacles for the Mod1 terminals.
Report the problem to the person responsible for repairing store loop wiring.

MAP 0140: W772 Message

The backup store controller is not receiving store loop communications.

The backup store controller is sending beacons but it is not receiving beacons.

The possible causes are:

- The store loop is open up-loop from the store controller.
- A Mod1 terminal is failing up-loop.
- The backup store controller is failing.
- The primary store controller is failing.
- The distance between powered-on Mod1 terminals on the store loop exceeds 1220 m (4000 ft).

Figure 46 on page 527 represents a typical store loop using the IBM Loop Wiring Concentrator. Your store loop might not be wired like this, but the position of your terminals on the loop and their relationship to the store controller will be similar. The terminal numbers are shown in numeric order, but they can be put in any order on your store loop. The store controller transmits data to the first terminal down-loop on the store loop. This terminal receives the data and passes it to the next terminal down-loop. This continues with each terminal receiving data from the terminal immediately up-loop from its position, and passing it on to the next terminal down-loop. The last terminal down-loop passes the data back to the store controller.

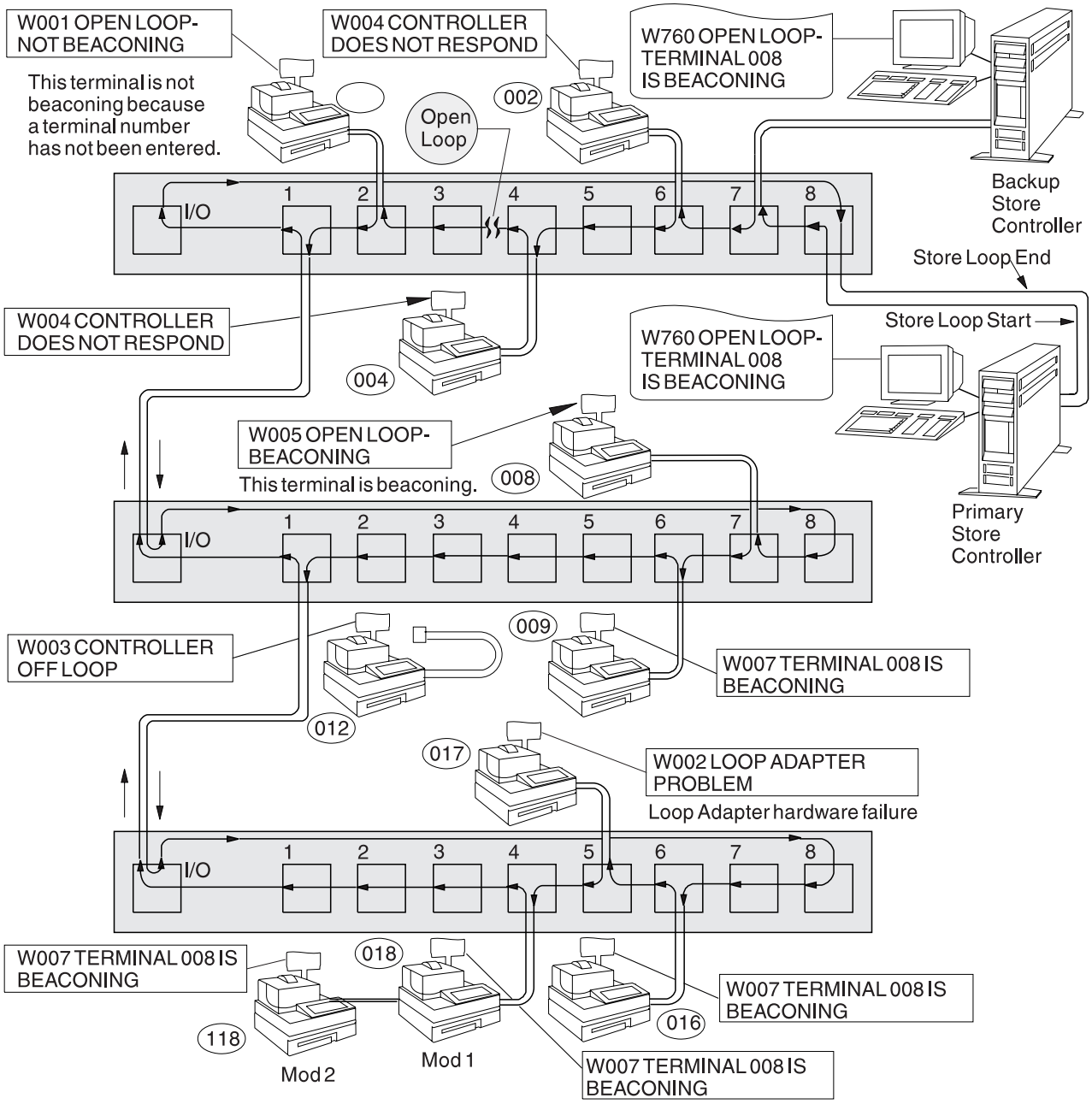


Figure 46. Store Loop with an Open Condition

001

To display the terminal number, press **S1**, type **7**, and press **S2**.
To display messages at a point-of-sale terminal (when the keyboard OFFLINE light is on), press **S1**, type **2**, and press **S2**.

Note: On the ANPOS Keyboard (during some procedures) and on the Enhanced Alphanumeric Keyboard, **Esc** = S1 and **Enter** = S2.
To display a system message at the store controller, sign on at the store controller, press **System Request** and then press **M**.

– Obtain a store loop layout chart, see Figure 23 on page 443, containing:
  • The physical location of store controllers and point-of-sale terminals

- The order of store controllers and point-of-sale terminals on the store loop
- The terminal numbers.

– To display the system message at the primary store controller, press **System Request** and then press **M**.

The primary store controller is the controller that has been designated to control the store loop. It is supported by the backup store controller.

Did any current message display?
Yes **No**

002

– Continue at Step 010 on page 529.

003

Did message W760 display?
Yes **No**

004

The failure has changed.
Follow the *User Response* for the message in Chapter 2, “Messages,” on page 9.

005

Is the terminal number 000 in the W760 message?
Yes **No**

006

Follow “MAP 0070: Store Loop Problem” on page 473.

007

– Disconnect the backup store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 47 on page 529.
– To display the system message at the primary store controller, press **System Request** and then press **M**.

Did message W761 display?
Yes **No**

008

For message W760, follow “MAP 0070: Store Loop Problem” on page 473.

For message W764, follow “MAP 0130: W764 Message” on page 518.

009

The backup store controller is failing.

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the backup store controller to continue problem determination.

010

– Disconnect the backup store controller from the store loop by unplugging its store loop cable from the store loop receptacle. See Figure 47 on page 529.
– To display the system message at the backup store controller, press **System Request** and then press **M**.

Did message W774 display?
Yes No

011

The backup store controller is failing.

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the backup store controller to continue problem determination.

012

The primary store controller is failing.

– Record keywords CONTROLLER and INCORROUT.

Use the maintenance procedures for the primary store controller to continue problem determination.

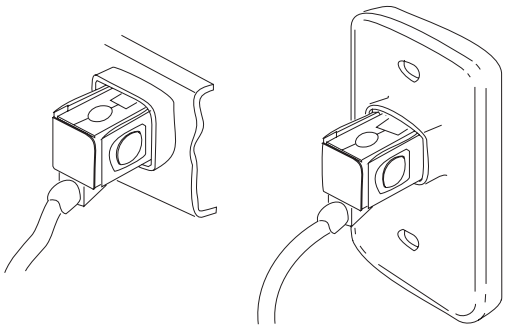


Figure 47. Typical Store Loop Receptacles

Glossary

This glossary includes terms and definitions from the *IBM Dictionary of Computing* (New York; McGraw-Hill, Inc., 1994).

A

ABM. Asynchronous balanced mode.

access method. A software component in a processor for controlling the flow of information through a network.

ACF/VTAM. Advanced Communications Function for the Virtual Telecommunications Access Method.

active. (1) Able to communicate on the network. A token-ring network adapter is active if it is able to transmit and receive on the network. (2) Operational. (3) Pertaining to a node or device that is connected or is available for connection to another node or device. (4) Currently transmitting or receiving.

adapter. (1) In the point-of-sale terminal, a circuit card that, with its associated software, enables the terminal to use a function or feature. (2) In a LAN, within a communicating device, a circuit card that, with its associated software and/or microcode, enables the device to communicate over the network.

adapter address. Twelve hexadecimal digits that identify a LAN adapter.

ADCS. Advanced Data Communications for Stores

address. (1) In data communication, the IEEE-assigned unique code or the unique locally administered code assigned to each device or workstation connected to a network. (2) A character, group of characters, or a value that identifies a register, a particular part of storage, a data source, or a data link. The value is represented by one or more characters. (3) To refer to a device or an item of data by its address. (4) The location in the storage of a computer where data is stored.

Advanced Data Communications for Stores (ADCS). An IBM-licensed product that functions at the host processor to permit host-to-store communication.

alert. (1) An error message sent to the system services control point (SSCP) at the host system. (2) For IBM LAN management products, a notification indicating a possible security violation, a persistent error condition, or an interruption or potential interruption in the flow of data around the network. See also *network management vector transport*. (3) In SNA, a record sent to a system problem management focal point to communicate the existence of an alert condition. (4) In the NetView program, a high-priority event that warrants immediate attention. This data base record is generated for certain event types that are designed by user-constructed filters.

alphanumeric. Pertaining to a character set containing letters, digits, and other special characters.

Alphanumeric point-of-sale keyboard (ANPOS keyboard). This keyboard consists of a section of alphanumeric keys, a programmable set of point-of-sale keys, a numeric keypad, and system function keys. If attached through the PS/2 port, this keyboard can optionally include a pointing device.

alternate adapter. In a personal computer that is used on a LAN and that supports installation of two network adapters, the adapter that uses alternate (not standard or default) mapping between adapter-shared RAM, adapter ROM, and designated computer memory segments. The alternate adapter is usually designated as adapter 1 in configuration parameters. Contrast with *primary adapter*.

Alternate File Server. A store controller that maintains image versions of all non-system mirrored files and that can assume control if the configured File Server becomes disabled.

Alternate Master Store Controller. The store controller that can take control of the LAN if the configured Master Store Controller becomes disabled. It maintains image versions of both system mirrored and system compound files.

American National Standard Code for Information Interchange (ASCII). The standard code, using a coded character set consisting of 7-bit coded characters (8 bits including parity check), used for information interchange among data processing systems, data communication systems, and associated equipment. The ASCII set consists of control characters and graphics characters.

ANPOS keyboard. Alphanumeric point-of-sale keyboard.

API. Application program interface.

application program. (1) A program written for or by a user that applies to the user's own work. (2) A program written for or by a user that applies to a particular application. (3) A program used to connect and communicate with stations in a network, enabling users to perform application-oriented activities.

application program interface (API). The formally defined programming language interface that is between an IBM system control program or a licensed program and the user of the program.

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architecture. A logical structure that encompasses operating principles including services, functions, and protocols. See *computer architecture, network architecture, Systems Application Architecture (SAA), Systems Network Architecture (SNA)*.

ARTIC adapter. A family of communications coprocessor adapters that, with appropriate electrical interfaces, can support a wide range of communication devices. For the IBM Store System, an ARTIC adapter provides communications support for ASYNC, SDLC, and X.25 communications.

ASCII. American National Standard Code for Information Interchange.

async. asynchronous.

asynchronous (async). (1) Pertaining to two or more processes that do not depend upon the occurrence of specific events such as timing signals. (2) Without regular time relationship; unexpected or unpredictable with respect to the execution of program instructions.

asynchronous balanced mode (ABM). An operational mode of a balanced data link in which either combined station can send commands at any time and can initiate transmission of response frames without explicit permission from the other combined station.

attach. (1) To connect a device physically. (2) To make a device a part of a network logically. Compare with *connect*.

attaching device. Any device that is physically connected to a network and can communicate over the network.

B

background. On a color display, the part of the display screen that surrounds a character.

background application. A non-interactive program that can be selected from the background application screen or that can start automatically when the system is IPLed or when the controller is activated as the master or file server. Contrast with *foreground application*.

backup. Pertaining to a system, device, file, or facility that can be used in the event of a malfunction or the loss of data.

bar code. A code representing characters by sets of parallel bars of varying thickness and separation that are read optically by transverse scanning.

baseband. (1) A frequency band that uses the complete bandwidth of a transmission medium. Contrast with *broadband, carrierband*. (2) A method of data transmission that encodes, modulates, and impresses information on the transmission medium without shifting or altering the frequency of the information signal.

base unit. The part of the IBM 4683 Point-of-Sale terminal that contains the power supply and the interfaces.

BASIC. Beginner's All-purpose Symbolic Instruction Code. A programming language that uses common English words.

basic conversation. A conversation in which programs exchange data records in an SNA-defined format. This format is a stream of data containing 2-byte length prefixes that specify the amount of data to follow before the next prefix.

batch. Smaller subdivisions of price change records within an event. Each batch has a 12-character ID and a 30-character description field.

baud. The rate at which signal conditions are transmitted per second. Contrast with *bits per second (bps)*.

beacon. (1) A frame sent by an adapter on a ring network indicating a serious ring problem, such as a broken cable. It contains the addresses of the beaconing station and its nearest active upstream neighbor (NAUN). (2) To send beacon frames continuously. An adapter is *beaconing* if it is sending such a frame.

beaconing. An error-indicating function of token-ring adapters that assists in locating a problem causing a hard error on a token-ring network.

binary. (1) Pertaining to a system of numbers to the base two; the binary digits are 0 and 1. (2) Pertaining to a selection, choice, or condition that has two possible different values or states.

bind. In SNA products, a request to activate a session between two logical units.

BIND. See bind session.

bind session (BIND). In SNA products, a request to activate a session between two logical units (LUs).

bit. Either of the binary digits: a 0 or 1.

bits per second (bps). The rate at which bits are transmitted per second. Contrast with *baud*.

block size. (1) The minimum size that frames are grouped into for retransmission. (2) The number of data elements (such as bits, bytes, characters, or records) that are recorded or transmitted as a unit.

bootstrap. A sequence of instructions whose execution causes additional instructions to be loaded and executed until the complete computer program is in storage.

bps. Bits per second.

Bps. Bytes per second.

bridge. (1) An attaching device connected to two LAN segments to allow the transfer of information from one LAN segment to the other. A bridge may connect the LAN segments directly by network adapters and software in a single device, or may connect network adapters in two separate devices through software and use of a telecommunications link between the two adapters. (2) A functional unit that connects two LANs that use the same logical link control (LLC) procedures but may use the same or different medium access control (MAC) procedures. Contrast with *gateway* and *router*.

broadband. A frequency band divisible into several narrower bands so that different kinds of transmissions such as voice, video, and data transmission can occur at the same time. Synonymous with *wideband*. Contrast with *baseband*.

buffer. (1) A portion of storage used to hold input or output data temporarily. (2) A routine or storage used to compensate for a difference in data rate or time of occurrence of events, when transferring data from one device to another.

bus. (1) In a processor, a physical facility on which data is transferred to all destinations, but from which only addressed destinations may read in accordance with appropriate conventions. (2) A network configuration in which nodes are interconnected through a bidirectional transmission medium. (3) One or more conductors used for transmitting signals or power.

byte. A string consisting of 8 bits that is treated as a unit, and that represents a character. See *n-bit byte*.

C

C. A high-level programming language designed to optimize run time, size, and efficiency.

C & SM. Communications and systems management.

cable loss (optical). The loss in an optical cable equals the attenuation coefficient for the cables fiber times the cable length.

cable segment. A section of cable between components or devices on a network. A segment may consist of a single patch cable, multiple patch cables connected together, or a combination of building cable and patch cables connected together. See *LAN segment, ring segment*.

call. The action of bringing a function or subprogram into effect, usually by specifying the entry conditions and jumping to an entry point.

carrierband. A frequency band in which the modulated signal is superimposed on a carrier signal (as differentiated from baseband), but only one channel is present on the medium. Contrast with *baseband, broadband*.

cash drawer. A drawer at a point-of-sale terminal that can be programmed to open automatically. See *till*.

CCB. Command control block.

CCC/IP. Controller-to-Controller Communications over Internet Protocol.

CCITT. Comiteé Consultatif International Télégraphique et Téléphonique. The International Telegraph and Telephone Consultative Committee.

CD. Corrective diskette.

CD-ROM. Compact disc Read-only memory. High-capacity read-only memory in the form of an optically read compact disk.

chain. (1) Transfer of control from the currently executing program to another program or overlay. (2) Referencing a data record from a previous data record.

channel. (1) A functional unit, controlled by a host computer, that handles the transfer of data between processor storage and local peripheral equipment. (2) A path along which signals can be sent. (3) The portion of a storage medium that is accessible to a given reading or writing station.

CICS. Customer Information Control System.

circuit. (1) A logic device. (2) One or more conductors through which an electric current can flow.

class. (1) A template for creating objects; a class defines data and methods; a class is a unit of organization in a Java program. A class can pass on its public data and methods to its subclasses. (2) A collection of variables and methods that an object can have, or a template for building objects.

.class file. A file containing machine-independent Java bytecodes. The Java compiler generates *.class* files for the Java interpreter to read.

class method. A class method is a function that is defined as a part of a class.

classpath. An environment variable used to define all the directories where *.class* files are found.

.class variable. A variable allocated once per class. Class variables have global class scope and belong to the entire class instead of an instance.

clear. To delete data from a screen or from memory.

COBOL. Common business-oriented language. A high-level programming language, based on English, that is used primarily for business applications.

command. (1) A request for performance of an operation or execution of a program. (2) A character string from a source external to a system that represents a request for system action.

command control block (CCB). In the IBM Token-Ring Network, a specifically formatted information provided from the application program to the adapter support software to request an operation.

Common Programming Interface-Communications (CPI-C). Provides languages, commands, and calls that allow the development of applications that are more easily integrated and moved across environments supported by Systems Applications Architecture (SAA).

communication adapter. A circuit card and its associated software that enable a device, such as a personal computer, to be connected to a network or another computer (examples include binary synchronous, asynchronous, modem, and LAN adapters).

communications and systems management (C & SM). A set of tools, programs, and network functions used to plan, operate, and control an SNA communications network. C & SM runs on the store controller and must also exist at the host site.

compact disc- read-only memory (CD-ROM). (1) A 4.75-inch optical memory storage medium, capable of storing approximately 650 megabytes of data. Data is read optically by means of a laser. (2) A disc with information stored in the form of pits along a spiral track. The information is decoded by a compact-disc player and interpreted as digital audio data, which most computers can process.

compile. (1) To translate all or part of a program expressed in a high-level language into a computer program expressed in an intermediate language, an assembly language, or a machine language. (2) To prepare a machine language program from a computer program written in another programming language by making use of the overall logic structure of the program, or generating more than one computer instruction for each symbolic statement, or both, as well as performing the function of an assembler. (3) To translate a source program into an executable program (an object program). (4) To translate a program written in a high-level programming language into a machine language program.

compound files. Files that are kept on all store controllers.

computer architecture. The organizational structure of a computer system, including hardware and software.

concurrent conversations. The ability of a transaction program (TP) to manage more than one LU 6.2 conversation at the same time. When this ability is written into a TP, the TP is said to be *managing concurrent conversations*.

configuration. The group of devices, options, and programs that make up a data processing system or network as defined by the nature, number, and chief characteristics of its functional units. More specifically, the term may refer to a hardware configuration or a software configuration. See also *system configuration*.

configuration parameters. Variables in a configuration definition, the values of which characterize the relationship of a product, such as a bridge, to other products in the same network.

connect. In a LAN, to physically join a cable from a station to an access unit or network connection point. Contrast with *attach*.

contention. In a LAN, a situation in which two or more data stations are allowed by the protocol to start transmitting concurrently and thus risk collision.

contention loser. In APPC, the LU that must request and receive permission from the session partner LU to allocate a session. Contrast with *contention winner*.

contention winner. The LU that can allocate a session without requesting permission from the session partner LU. Contrast with *contention loser*.

contiguous. Touching or joining at the edge or boundary; adjacent. For example, an unbroken consecutive series of memory locations.

controller. A unit that controls input/output operations for one or more devices.

conversation. A logical connection between two programs over an LU type 6.2 session that allows them to communicate with each other while processing a transaction. See also *basic conversation* and *mapped conversation*.

conversation partner. One of the two programs involved in a conversation.

conversation state. The condition of a conversation that reflects what the past action on that conversation has been and that determines what the next set of actions may be.

corrective diskette (CD). A set of diskettes that contain modules to replace the modules in the active program subdirectory. The first diskette of the set must contain a product control file that describes which product the modules are to be applied to and a list of all modules that are to be replaced.

CRC. Cyclic redundancy check.

cursor. A movable point of light (or a short line) that indicates where the next character is to be entered on the display screen.

Customer Information Control System (CICS). An IBM licensed program that enables transactions entered at remote terminals to be processed concurrently by user-written application programs. It includes facilities for building, using, and maintaining data bases.

customer receipt. An itemized list of merchandise purchased and paid for by the customer.

customize. To tailor a program or store system through option selection.

cyclic redundancy check (CRC). Synonym for *frame check sequence (FCS)*.

D

data. (1) A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by human or automatic means. (2) Any representations such as characters or analog quantities to which meaning is or might be assigned.

data circuit-terminating equipment (DCE). In a data station, the equipment that provides the signal conversion and coding between the data terminal equipment (DTE) and the line.

data communication. (1) Transfer of information between functional units by means of data transmission according to a protocol. (2) The transmission, reception, and validation of data.

data file. A collection of related data records organized in a specific manner; for example, a payroll file (one record for each employee, showing such information as rate of pay and deductions) or an inventory file (one record for each inventory item, showing such information as cost, selling price, and number in stock.) See also *data set, file*.

data link. (1) Any physical link, such as a wire or a telephone circuit, that connects one or more remote terminals to a communication control unit, or connects one communication control unit with another. (2) The assembly of parts of two data terminal equipment (DTE) devices that are controlled by a link protocol, and the interconnecting data circuit, that enable data to be transferred from a data source to a data link. (3) In SNA, see also *link*. **Note:** A telecommunication line is only the physical medium of transmission. A data link includes the physical medium of transmission, the protocol, and associated devices and programs; it is both physical and logical.

data processing system. A network, including computer systems and associated personnel, that accepts information, processes it according to a plan, and produces the appropriate results.

data rate. See *data transfer rate, line data rate*.

data set. Logically related records treated as a single unit. See also *file*.

data terminal equipment (DTE). (1) That part of a data station that serves as a data source, data receiver, or both. (2) Equipment that sends or receives data, or both.

data transfer. (1) The result of the transmission of data signals from any data source to a data receiver. (2) The movement, or copying, of data from one location and the storage of the data at another location.

data transfer rate. The average number of bits, characters, or blocks per unit of time passing between equipment in a data-transmission session. The rate is expressed in bits, characters, or blocks per second, minute, or hour.

data transmission. The conveying of data from one place for reception elsewhere by means of telecommunications.

dB. Decibel.

DBCS. Double-byte character set.

DCE. Data circuit-terminating equipment.

DDA. Data Distribution Application.

debug. To detect, diagnose, and eliminate errors in computer programs.

decibel (dB). (1) One tenth of a bel. (2) A unit that expresses the ratio of two power levels on a logarithmic scale. (3) A unit for measuring relative power. The number of decibels is 10 times the logarithm base (base 10) of the ratio of the measured power levels; if the measured levels are voltages (across the same or equal resistance), the number of decibels is twenty times the log of the ratio. See also *neper*.

default. Pertaining to an attribute, value, or option that is assumed when none is explicitly specified.

default value. The value the system supplies when the user does not specify a value.

delayed data maintenance. A function that allows the item record, the operator and the check authorization files to be maintained from the host on an immediate or a delayed basis.

destination. Any point or location, such as a node, station, or particular terminal, to which information is to be sent.

device. (1) A mechanical, electrical, or electronic contrivance with a specific purpose. (2) An input/output unit such as a terminal, display, or printer. See also *attaching device*.

device channel. In IBM Point-of-Sale terminals, a path along which signals for serial input/output devices can be sent. For these terminals, the device channel controller or adapter is contained on the system board.

diagnostic diskette. A diskette containing diagnostic modules or tests used by computer users and service personnel to diagnose hardware problems.

diagnostics. Modules or tests used by computer users and service personnel to diagnose hardware problems.

dialing. Using a dial or pushbutton telephone to initiate a telephone call. In telecommunication, attempting to establish a connection between a terminal and a telecommunication device over a switched line.

direct memory access (DMA). A procedure or method designed to transfer data between main storage and I/O units without intervention of the processing unit.

directory. (1) A table of identifiers and references that correspond to items of data. (2) An index that a control program uses to locate one or more blocks of data that are stored in separate areas of a data set in direct access storage.

disabled. (1) Pertaining to a state of a processing unit that prevents the occurrence of certain types of interruptions. (2) Pertaining to the state in which a transmission control unit or audio response unit cannot accept incoming calls on a line.

DISC. Disconnect character.

disk. A round, flat plate coated with a magnetic substance on which computer data is stored. See also *integrated disk, fixed disk*.

diskette. A thin, flexible magnetic disk permanently enclosed in a protective jacket. A diskette is used to store information for processing.

Disk Operating System (DOS). An operating system for computer systems that use disks and diskettes for auxiliary storage of programs and data.

display. (1) A visual presentation of data. (2) A device that presents visual information to the point-of-sale terminal operator and to the customer, or to the display station operator.

distributed. Physically separate but connected by cables.

Distributed Systems Executive (DSX). An IBM licensed program available for IBM host systems that allows the host system to get, send, and remove files, programs, formats and procedures in a network of computers.

DMA. Direct memory access

domain. An SSCP and the resources that it can control.

DOS. Disk Operating System.

double-byte character set (DBCS). A set of characters in which each character is represented by 2 bytes. Languages such as Japanese, Chinese, and Korean, which contain more symbols than can be represented by 256 code points, require double-byte character sets. Because each character requires 2 bytes, the typing, display, and printing of DBCS characters requires hardware and programs that support DBCS. Contrast with single-byte character set.

driver. Software component that controls a device.

drop. A cable that leads from a faceplate to the distribution panel in a wiring closet. When the IBM Cabling System is used with the IBM Token-Ring Network, a drop may form part of a lobe. See also *lobe*.

DSX. Distributed Systems Executive.

DTE. Data terminal equipment.

dump. (1) To write at a particular instant the contents of storage, or part of storage, onto another data medium for the purpose of safeguarding or debugging the data. (2) Data that has been dumped.

E

EAN. European article number.

EBCDIC. Extended binary-coded decimal interchange code.

EIA. Electronic Industries Association. See *EIA interface*.

EIA interface. An industry-accepted interface for connecting devices having voltage-related limits.

emulation. (1) The imitation of all or part of one computer system by another, primarily by hardware, so that the imitating system accepts the same data, executes the same programs, and achieves the same results as the imitated computer system. (2) The use of programming techniques and special machine features to permit a computing system to execute programs written for another system.

enabled. (1) On a LAN, pertaining to an adapter or device that is active, operational, and able to receive frames from the network. (2) Pertaining to a state of a processing unit that allows the occurrence of certain

types of interruptions. (3) Pertaining to the state in which a transmission control unit or an audio response unit can accept incoming calls on a line.

envelope. (1) Information added to a frame or other message unit to allow it to be transmitted using a protocol other than the protocol in which the message unit originated. (2) To surround or enclose a message unit in information to allow the message unit to be transmitted using a protocol other than the protocol in which the message originated.

error condition. The condition that results from an attempt to use instructions or data that are invalid.

error message. A message that is issued because an error has been detected.

Ethernet. A 10-megabit baseband local area network that allows multiple stations to access the transmission medium at will without prior coordination, avoids contention by using carrier sense and deference, and resolves contention by using collision detection and transmission. Ethernet uses carrier sense multiple access with collision detection (CSMA/CD).

European article number (EAN). A number that is assigned to and encoded on an article of merchandise for scanning in some countries.

evaluation. Reduction of an expression to a single value.

exchange identification (XID). The ID that is exchanged with the remote physical unit when an attachment is first established.

execute. To perform the actions specified by a program or a portion of a program.

execution. The process of carrying out an instruction or instructions of a computer program by a computer.

exit. To execute an instruction or statement within a portion of a program in order to terminate the execution of that portion. **Note:** Such portions of programs include loops, routines, subroutines, and modules.

expansion board. In a personal computer, a panel containing microchips that a user can install in an expansion slot to add memory or special features. Synonymous with *expansion card*, *extender card*.

expansion card. Synonym for *expansion board*.

expansion slot. In a personal computer, one of several receptacles in the system board of the system unit or expansion unit into which a user can install an expansion board such as a memory expansion option.

extended binary-coded decimal interchange code (EBCDIC). A coded character set consisting of 8-bit coded characters.

extender card. Synonym for *expansion board*.

F

fault. An accidental condition that causes a functional unit to fail to perform its required function.

feature. A part of an IBM product that may be ordered separately by the customer.

Feature Expansion. A card that plugs into an IBM 4683 Point-of-Sale Terminal and allows additional devices to be used.

field. On a data medium or a storage medium, a specified area used for a particular category of data; for example, a group of character positions used to enter or display wage rates on a panel.

file. A named set of records stored or processed as a unit. For example, an invoice may form a record and the complete set of such records may form a file. See also *data file* and *data set*.

file name. (1) A name assigned or declared for a file. (2) The name used by a program to identify a file.

file server. (1) A store controller that maintains prime versions of all non-system mirrored files. (2) A high-capacity disk storage device or a computer that each computer on a network can access to retrieve files that can be shared among the attached computers.

file type. The attribute of a file that specifies to which store controllers it is distributed.

fixed disk (drive). In a personal computer system unit, a disk storage device that reads and writes on rigid magnetic disks. It is faster and has a larger storage capacity than a diskette and is permanently installed.

foreground. On a color display, the part of the display area that is the character itself.

foreground application. An interactive program that can be selected by system menus or started in command mode. Contrast with *background application*.

formatted diskette. A diskette on which track and sector control information has been written and that can be used by the computer to store data. **Note:** A diskette must be formatted before it can receive data.

frame. (1) The unit of transmission in some LANs, including the IBM Token-Ring Network. It includes delimiters, control characters, information, and checking characters. On a token-ring network, a frame is created from a token when the token has data appended to it. On a token-bus network, all frames including the token frame contain a preamble, start delimiter, control address, optional data and checking characters, end delimiter, and are followed by a minimum silence period. (2) A housing for machine elements. (3) In synchronous

data link control (SDLC), the vehicle for every command, every response, and all information that is transmitted using SDLC procedures. Each frame begins and ends with a flag.

frame check sequence (FCS). (1) A system of error checking performed at both the sending and receiving station after a block-check character has been accumulated. (2) A numeric value derived from the bits in a message that is used to check for any bit errors in transmission. (3) A redundancy check in which the check key is generated by a cyclic algorithm. Synonymous with *cyclic redundancy check (CRC)*.

franking. Printing an indication on a document that the document has been processed. This franking may be a store header line, a "total" line, or a transaction number that is printed when a check, a discount coupon, or a gift certificate is inserted in the document insert station of the point-of-sale terminal during certain types of transactions.

frequency. The rate of signal oscillation, expressed in hertz (cycles per second).

function. (1) A specific purpose of an entity, or its characteristic action. (2) A subroutine that returns the value of a single variable. (3) In data communications, a machine action such as a carriage return or line feed.

G

gateway. A device and its associated software that interconnect networks of systems of different architectures. The connection is usually made above the Reference Model network layer. For example, a gateway allows LANs access to System/370 host computers. Contrast with *bridge* and *router*.

group. (1) A set of related records that have the same value for a particular field in all records. (2) A collection of users who can share access authorities for protected resources. (3) A list of names that are known together by a single name.

H

hardware. Physical equipment as opposed to programs, procedures, rules, and associated documentation.

HCP. Host command processor for advanced data communications.

HCP. Host command processor.

header. The portion of a message that contains control information for the message such as one or more destination fields, name of the originating station, input sequence number, character string indicating the type of message, and priority level for the message.

host application program. An application program that the host processor executes.

host command processor (HCP). The SNA logical unit of the programmable Store System store controller.

host computer. (1) The primary or controlling computer in a multi-computer installation or network. (2) In a network, a processing unit in which resides a network access method. Synonymous with *host processor*.

host processor. (1) In a network, a computer that primarily provides services such as computation, data base access, or special programs or programming languages. (2) Synonym for *host computer*.

host processor. (1) A processor that controls all or part of a user application network. (2) In a network, the processing unit in which resides the access method for the network. (3) In an SNA network, the processing unit that contains a system services control point (SSCP). (4) A processing unit that executes the access method for attached communication controllers. (5) The processing unit required to create and maintain PSS. Synonymous with host computer.

I

IBM Disk Operating System (DOS). A disk operating system based on MS-DOS**.

identifier. String of characters used to name elements of a program, such as variable names, reserved words, and user-defined function names.

idles. Signals sent along a ring network when neither frames nor tokens are being transmitted.

image version. Copy of a prime version of a file. See *prime version*.

inactive. (1) Not operational. (2) Pertaining to a node or device not connected or not available for connection to another node or device. (3) In the IBM Token-Ring Network, pertaining to a station that is only repeating frames or tokens, or both.

information (I) frame. A frame in I format used for numbered information transfer. See also *supervisory frame, unnumbered frame.*

initialize. In a LAN, to prepare the adapter (and adapter support code, if used) for use by an application program.

initial program load (IPL). The initialization procedure that causes an operating system to begin operation.

input device. Synonym for *input unit*.

input field. An unprotected display field that the terminal operator can add to, modify, or erase by using the keyboard. Contrast with *protected field*.

input/output (I/O). (1) Pertaining to a device whose parts can perform an input process and an output process at the same time. (2) Pertaining to a functional unit or channel involved in an input process, output process, or both, concurrently or not, and to the data involved in such a process.

input unit. A device in a data processing system by means of which data can be entered into the system. Synonymous with *input device*.

insert. To make an attaching device an active part of a LAN.

integrated. Arranged together as one unit.

integrated disk. An integral part of the processor that is used for magnetically storing files, application programs, and diagnostics. Synonymous with *disk*.

interactive. Pertaining to an application or program in which each entry calls forth a response from a system or program. An interactive program may also be conversational, implying a continuous dialog between the user and the system.

interface. (1) A shared boundary between two functional units, defined by functional characteristics, common physical interconnection characteristics, signal characteristics, and other characteristics as appropriate. (2) A shared boundary. An interface may be a hardware component to link two devices or a portion of storage or registers accessed by two or more computer programs. (3) Hardware, software, or both, that links systems, programs, or devices.

interference. (1) The prevention of clear reception of broadcast signals. (2) The distorted portion of a received signal.

interleave. To insert segments of one program into another program so that the two programs can, in effect, be executed at the same time.

interrupt. (1) A suspension of a process, such as execution of a computer program, caused by an external event and performed in such a way that the process can be resumed. (2) To stop a process in such a way that it can be resumed. (3) In data communication, to take an action at a receiving station that causes the sending station to end a transmission. (4) A means of passing processing control from one software or microcode module or routine to another, or of requesting a particular software, microcode, or hardware function.

interrupt level. The means of identifying the source of an interrupt, the function requested by an interrupt, or the code or feature that provides a function or service.

I/O. Input/output.

I/O device. Equipment for entering and receiving data from the system.

IP. Internet Protocol.

IPL. Initial program load.

isochronous. Time-dependent. Refers to processes in which data must be delivered within certain time constraints.

item. (1) One member of a group. (2) In a store, one unit of a commodity, such as one box, one bag, or one can. Usually an item is the smallest unit of a commodity to be sold.

J

Java. An object-oriented programming language designed to be platform independent.

Java application. A Java Virtual Machine (JVM) combined with its class and parameters.

Java Virtual Machine (JVM). Java interpreter that runs the class.

jumper. A connector between two pins on a network adapter that enables or disables an adapter option, feature, or parameter value.

JUCC. Japan Unified Cash Card.

JVM. See Java Virtual Machine.

K

K. When referring to storage capacity, a symbol that represents two to the tenth power, or 1024.

Kb. Kilobit.

KB. Kilobyte.

keyboard. A group of numeric keys, alphabetic keys, special character keys, or function keys used for entering information into the terminal and into the system.

keyed file. Type of file composed of keyed records. Each keyed record has two parts: a key and data. A key is used to identify and access each record in the file.

kilobit (Kb). 1024 binary digits.

kilobyte (KB). 1024 bytes for processor and data storage (memory) size.

L

label. Constant, either numeric or literal, that references a statement or function.

LAN. Local area network.

LAN segment. (1) Any portion of a LAN (for example, a single bus or ring) that can operate independently but is connected to other parts of the establishment network by bridges. (2) An entire ring or bus network without bridges. See *cable segment, ring segment*.

LCD. Liquid crystal display.

leased line. Synonym for *nonswitched line*.

LED. Light-emitting diode.

light-emitting diode (LED). A semiconductor chip that gives off visible or infrared light when activated.

line connection. In the IBM Store System, the physical connection (or equipment) between nodes that provides two-way communication and error correction and detection between one link station and one or more other link stations. **Note:** In SNA, this physical connection is called a *link connection*. In the IBM Store System, it is called a *line connection*.

line data rate. The rate of data transmission over a telecommunications link.

link. (1) In the IBM Store System, the logical connection between nodes including the end-to-end link control procedures. (2) The combination of physical media, protocols, and programming that connects devices on a network. (3) In computer programming, the part of a program, in some cases a single instruction or an address, that passes control and parameters between separate portions of the computer program. (4) To interconnect items of data or portions of one or more computer programs. (5) In SNA, the combination of the link connection and link stations joining network nodes. See also *link connection*. **Note:** A link connection is the physical medium of transmission; for example, a telephone wire or a microwave beam. A link includes the physical medium of transmission, the protocol, and associated devices and programming; it is both logical and physical.

link connection. (1) All physical components and protocol machines that lie between the communicating link stations of a link. The link connection may include a switched or leased physical data circuit, a LAN, or an X.25 virtual circuit. (2) In SNA, the physical equipment providing two-way communication and error correction and detection between one link station and one or more other link stations. (3) In the IBM Store System, the logical link providing two-way communication of data from one network node to one or more other network nodes.

listing. A printout of source code.

load. In computer programming, to enter data into memory or working registers.

lobe. In the IBM Token-Ring Network, the section of cable (which may consist of several segments) that connects an attaching device to an access unit.

local area network (LAN). A computer network located on a user's premises within a limited geographical area. **Note:** Communication within a LAN is not subject to external regulations; however, communication across the LAN boundary may be subject to some form of regulation.

local program. The program being discussed within a particular context. Contrast with *remote program*.

logical file name (LFN). An abbreviated file name used to represent either an entire file name or the drive and subdirectory path part of the file name.

logical link. In an MVS/VS multisystem environment, the means by which a physical link is related to the transactions and terminals that can use the physical link.

logical unit (LU). (1) In SNA, a port through which an end user accesses the SNA network in order to communicate with another end user and through which the end user accesses the functions provided by system services control points (SSCPs). An LU can support at least two sessions, one with an SSCP and one with another LU, and may be capable of supporting many sessions with other logical units. (2) A type of network addressable unit that enables end users to communicate with each other and gain access to network resources.

logon (n). The procedure for starting up a point-of-sale terminal or store controller for normal sales operations by sequentially entering the correct security number and transaction number. Synonymous with *sign-on*.

log on (v). (1) To initiate a session. (2) In SNA products, to initiate a session between an application program and a logical unit (LU). Synonymous with *sign-on*.

loop. (1) A set of instructions that may be executed repeatedly while a certain condition prevails. See also *store loop*. (2) A closed unidirectional signal path connecting input/output devices to a network.

LU. Logical unit.

M

magnetic stripe. The magnetic material (similar to recording tape) on merchandise tickets, credit cards, and employee badges. Information is recorded on the

stripe for later “reading” by the magnetic stripe reader (MSR) or magnetic wand reader attached to the point-of-sale terminal.

magnetic stripe reader (MSR). A device that reads coded information from a magnetic stripe on a card, such as a credit card, as it passes through a slot in the reader.

maintenance analysis procedure (MAP). Deprecated term for *procedure*. See *procedure*.

maintenance diskette. See *corrective diskette*.

Manufacturing Automated Protocol (MAP). A broadband LAN with a bus topology that passes tokens from adapter to adapter on a coaxial cable.

MAP. (1) Maintenance analysis procedure. (2) Manufacturing Automated Protocol.

mapped conversation. A conversation in which programs exchange data records with arbitrary data formats agreed upon by the applications programmers.

mapping. Establishing a correspondence between the elements of one set and the elements of another set.

master store controller. The store controller that maintains prime versions of system mirrored files and all compound files.

Mb. Megabit.

MB. Megabyte.

MCF Network. Multiple store controllers communicating on a network using DDA. This provides data redundancy among the store controllers.

media. Plural form of *medium*.

medialess. Not fitted with a direct access storage device, such as a diskette drive or fixed disk drive, as in some models of IBM Point of Sale Terminals.

medium. (1) A physical carrier of electrical or optical energy. (2) A physical material in or on which data may be represented.

megabit (Mb). A unit of measure for throughput. 1 megabit = 1,048,576 bits.

megabyte (MB). A unit of measure for data. 1 megabyte = 1,048,576 bytes.

megahertz (MHz). A unit of measure of frequency. 1 megahertz = 1,000,000 hertz.

memory. Program-addressable storage from which instructions and other data can be loaded directly into registers for subsequent execution or processing.

message. (1) An arbitrary amount of information whose beginning and end are defined or implied. (2) A group of characters and control bit sequences transferred as an entity. (3) In telecommunication, a combination of characters and symbols transmitted from one point to another. (4) A logical partition of the user device’s data stream to and from the adapter. See also *error message, operator message*.

MHz. Megahertz.

Micro Channel. The architecture used by IBM Personal System/2 computers, Models 50 and above. This term is used to distinguish these computers from personal computers using a PC I/O channel, such as an IBM PC, XT, or an IBM Personal System/2 computer, Model 25 or 30.

migration. Upgrade of a program to a newer version or release.

mirrored files. Files that are kept on both the Master Store Controller and the Alternate Master Store Controller or on both the File Server and Alternate File Server. System mirrored files are kept on the Master Store Controller and Alternate Store Controller and non-system mirrored files are kept on the File Server and Alternate File Server.

Mod1. A generic name used to refer to a point-of-sale terminal in the IBM 4690 Store System that loads and executes programs. A Mod1 can be any of the following models: 4683-001, 4683-A01, 4683-P11, 4683-P21, 4683-P41, 4683-421, 4693-*xx*1, and 4694-*xx*4 (terminal part if a controller/terminal).

Mod2. A generic name used to refer to a point-of-sale terminal in the IBM 4690 Store System that does not load and execute programs, but attaches to a terminal that does. A Mod2 can be one of the following models: 4683-002, 4683-A02, or 4693-2*x*2.

modem (MOdulator/DEModulator). A device that converts digital data from a computer to an analog signal that can be transmitted in a telecommunication line, and converts the analog signal received to data for the computer.

module. A program unit that is discrete and identifiable with respect to compiling, combining with other units, and load; for example, the input to, or output from, an assembler, compiler, linkage editor, or executive routine.

modulo check. A function designed to detect most common input errors by performing a calculation on values entered into a system by an operator or scanning device.

monitor. (1) A functional unit that observes and records selected activities for analysis within a data processing system. Possible uses are to show significant departures from the norm, or to determine levels of utilization of particular functional units. (2) Software or hardware that observes, supervises, controls, or verifies operations of a system.

monochrome display. A display device that presents display images in only one color.

MSR. Magnetic stripe reader.

multiple controller system. Synonym for *MCF Network*.

multipoint. Pertaining to communication among more than two stations over a single telecommunication line.

multipoint line. A telecommunication line or circuit connecting two or more stations. Contrast with *point-to-point line*.

N

name. An alphanumeric term that identifies a data set, statement, program, or cataloged procedure.

n-bit byte. A string that consists of n bits.

NCP. Network control program.

neper. A unit for measuring power. The number of nepers is the logarithm (base e) of the ratio of the measured power level.

NetBIOS. Network Basic Input/Output System.

NetView. A host-based IBM network management licensed program that provides communication network management (CNM) or communications and systems management (C & SM) services.

NetView Distribution Manager (NetView DM). A component of the NetView family supporting resource distribution within *Change Management*, and providing central control of software and microcode distribution and installation, to processors in a distributed/ departmental (SNA) network system. It allows a similar control of user data objects across the network, and provides the facilities to support the remote initiation of command lists.

network. (1) A configuration of data processing devices and software connected for information interchange. (2) An arrangement of nodes and connecting branches. Connections are made between data stations.

network administrator. A person who manages the use and maintenance of a network.

network architecture. The logical structure and operating principles of a computer network. See also *systems network architecture (SNA)* and *Open Systems Interconnect (OSI) architecture*. **Note:** The operating principles of a network include those of services, functions, and protocols.

Network Basic Input/Output System (NetBIOS). A message interface used on LANs to provide message, print server, and file server functions. The IBM NetBIOS application program interface (API) provides a programming interface to the LAN so that an application program can have LAN communication without knowledge and responsibility of the data link control (DLC) interface.

network control program (NCP). A control program for the 3704 or 3705 Communications Controller, generated by the user from a library of IBM-supplied modules.

network file system (NFS). A system that allows you to mount remote file systems across homogeneous and heterogeneous systems.

network management vector transport (NMVT). The portion of an alert transport frame that contains the alert message.

NFS. network file system

node. (1) Any device, attached to a network, that transmits and/or receives data. (2) An end point of a link, or a junction common to two or more links in a network. Nodes can be processors, controllers, or workstations. Nodes can vary in routing and other functional capabilities. (3) In a network, a point where one or more functional units interconnect transmission lines.

node address. The address of an adapter on a LAN.

nonswitched line. (1) A connection between systems or devices that does not have to be made by dialing. Contrast with *switched line*. (2) A telecommunication line on which connection does not have to be established by dialing. Synonymous with *leased line*.

nonvolatile random access memory (NVRAM). Random access memory that retains its contents after electrical power is shut off.

NRZI. (1) Non-return-to-zero inverted transmission. (2) Non-return-to-reference transmission in which the zeros are represented by a bit cell boundary transition in the information signal, and ones are represented by the absence of a bit cell boundary transition.

NVRAM. nonvolatile random access memory

O

OCR. Optical character recognition.

offline. Operation of a functional unit without the control of a computer or control unit.

online. Operation of a functional unit that is under the continual control of a computer or control unit. The term also describes a user's access to a computer using a terminal.

open. (1) To make an adapter ready for use. (2) A break in an electrical circuit. (3) To make a file ready for use.

Open Systems Interconnect (OSI). (1) The interconnection of open systems in accordance with specific ISO standards. (2) The use of standardized procedures to enable the interconnection of data processing systems. **Note:** OSI architecture establishes a framework for coordinating the development of current and future standards for the interconnection of computer systems. Network functions are divided into seven layers. Each layer represents a group of related data processing and communication functions that can be carried out in a standard way to support different applications.

Open Systems Interconnect (OSI) architecture. Network architecture that adheres to a particular set of ISO standards that relates to Open Systems Interconnect (OSI).

Open Systems Interconnect (OSI) Reference Model. A model that represents the hierarchical arrangement of the seven layers described by the Open Systems Interconnect (OSI) architecture.

operating system. Software that controls the execution of programs. An operating system may provide services such as resource allocation, scheduling, input/output control, and data management. Examples are IBM DOS and IBM OS/2.

Operating System/2 (OS/2). A set of programs that control the operation of high-speed large-memory IBM Personal Computers (such as the IBM Personal System/2 computer, Models 50 and above), providing multitasking and the ability to address up to 16 MB of memory. Contrast with *Disk Operating System (DOS)*.

operation. (1) A defined action, namely, the act of obtaining a result from one or more operands in accordance with a rule that completely specifies the result for any permissible combination of operands. (2) A program step undertaken or executed by a computer. (3) An action performed on one or more data items, such as adding, multiplying, comparing, or moving.

operational environment. (1) A summation of all of the IBM-supplied basic functions and the user programs that can be executed by the store controller to enable the devices in the system to perform specific operations. (2) The collection of IBM-supplied controller data and user programs, plus lists, tables, control blocks, and files that reside in a controller and control its operation. (3) The physical environment (for example: temperature, humidity, layout, or power requirements) that is needed for proper machine performance.

operator. (1) A symbol that represents the action being performed in a mathematical operation. (2) A person who operates a machine.

operator message. A message from the operating system or a program telling the operator to perform a specific function or informing the operator of a specific condition within the system, such as an error condition.

optical character recognition (OCR). The machine identification of printed characters through the use of light-sensitive devices.

option. (1) A specification in a statement, a selection from a menu, or a setting of a switch, that may be used to influence the execution of a program. (2) A hardware or software function that may be selected or enabled as part of a configuration process. (3) A piece of hardware (such as a network adapter) that can be installed in a device to modify or enhance device function.

OS. Operating system.

OS/2. Operating System/2.

OSI. Open Systems Interconnect.

OS/VS. Operating System/Virtual Storage.

owner. In relation to files, an owner is the user that creates the file and therefore has complete access to the file.

P

pacing. A technique by which a receiving component controls the rate of transmission by a sending component to prevent overrun or congestion.

packet. (1) In data communication, a sequence of binary digits, including data and control signals, that is transmitted and switched as a composite whole. (2) Synonymous with *data frame*. Contrast with *frame*.

packet assembler/disassembler (PAD). A functional unit that enables data terminal equipments (DTEs) not equipped for packet switching to access a packet switched network.

packing. Method of conserving disk storage space by stripping the high-order nibbles from ASCII numerals and storing the remaining low-order nibbles two to a byte.

PAD. Packet assembler/disassembler.

page. (1) The portion of a panel that is shown on a display surface at one time. (2) To move back and forth among the pages of a multiple-page panel. See also *scroll*. (3) In a virtual storage system, a fixed-length block that has a virtual address and is transferred as a unit between main storage and auxiliary storage.

panel. The complete set of formatted information that appears in a single display on a visual display unit.

parallel port. (1) A port that transmits the bits of a byte in parallel along the lines of the bus, one byte at a time, to an I/O device. (2) On a personal computer, it is used to connect a device that uses a parallel interface, such as a dot matrix printer, to the computer. Contrast with *serial port*.

parameter. (1) A name in a procedure that is used to refer to an argument passed to that procedure. (2) A variable that is given a constant value for a specified application and that may denote the application. (3) An item in a menu or for which the user specifies a value or for which the system provides a value when the menu is interpreted. (4) Data passed between programs or procedures.

parity (even). A condition when the sum of all of the digits in an array of binary digits is even.

parity (odd). A condition when the sum of all of the digits in an array of binary digits is odd.

partner. See *conversation partner*.

partner terminal. The term used to describe the relationship of a Mod 1 terminal and Mod 2 terminal when they are attached to each other.

password. In computer security, a string of characters known to the computer system and a user, who must specify it to gain full or limited access to a system and to the data stored within it.

path. (1) Reference that specifies the location of a particular file within the various directories and subdirectories of a hierarchical file system. (2) In a network, any route between any two nodes. (3) The route traversed by the information exchanged between two attaching devices in a network. (4) A command in IBM DOS and IBM OS/2 that specifies directories to be searched for commands or batch files that are not found by a search of the current directory.

PCI DSS. Payment Card Industry Data Security Standards.

peer node. Any *other* SNA type (2.1) node (another 4680/4690 store controller, AS/400, or others).

permanent virtual circuit (PVC). A virtual circuit that has a logical channel permanently assigned to it at each data terminal equipment (DTE). A call establishment protocol is not required.

personal computer (PC). A desk-top, free-standing, or portable microcomputer that usually consists of a system unit, a display, a keyboard, one or more diskette drives, internal fixed-disk storage, and an optional printer. PCs are designed primarily to give independent computing power to a single user and are inexpensively priced for purchase by individuals or small businesses. Examples include the various models of the IBM Personal Computers, and the IBM Personal System/2 computer.

personal identification number (PIN). A numeric identification code assigned to a customer to protect funds and data from unauthorized users.

physical link. In an MVS/VS multisystem environment, the actual hardware connection between two systems. Contrast with *logical link.*

physical unit (PU). In SNA, the component that manages and monitors the resources of a node, such as attached links and adjacent link stations, as requested by a system services control point (SSCP) through an SSCP-SSCP session.

pipe. A sequential file in a memory buffer that is used to pass messages from one program to another.

PLD. Power line disturbance.

plug. (1) A connector for attaching wires from a device to a cable, such as a store loop. A plug is inserted into a receptacle or plug. (2) To insert a connector into a receptacle or socket.

point-of-sale terminal. A unit that provides point-of-sale transaction, data collection, credit authorization, price look-up, and other inquiry and data entry functions.

point-to-point line. A switched or nonswitched telecommunication line that connects a single remote station to a computer. Contrast with *multipoint line*.

polling. (1) Interrogation of devices for purposes such as to avoid contention, to determine operational status, or to determine readiness to send or receive data. (2) In data communication, the process of inviting data stations to transmit, one at a time. The polling process usually involves the sequential interrogation of several data stations.

polling characters (address). A set of characters specific to a terminal and the polling operation; response to these characters indicates to the computer whether the terminal has a message to enter.

port. (1) An access point for data entry or exit. (2) A connector on a device to which cables for other devices such as display stations and printers are attached. Synonymous with *socket*.

post. (1) To affix to a usual place. (2) To provide items such as return code at the end of a command or function. (3) To define an appendage routine. (4) To note the occurrence of an event.

POST. Power-On Self Test.

power line disturbance (PLD). Interruption or reduction of electrical power.

Power-On Self Test (POST). A series of diagnostic tests that are run automatically each time the computer's power is switched on.

presentation space (PS). In 3270 emulation, the image of the 3270 screen data that is held in random access memory. This screen appears on the store controller or the terminal display when 3270 emulation is used in operator console mode; it is the virtual screen for applications using the 3270 emulator API. The presentation space is fixed as 24 lines of 80 characters on the display.

primary adapter. In a personal computer that is used on a LAN and that supports installation of two network adapters, the adapter that uses standard (or default) mapping between adapter shared RAM, adapter ROM, and designated computer memory segments. The primary adapter is usually designated as adapter 0 in configuration parameters. Contrast with *alternate adapter*.

primary application. A program that controls the normal operating environment of your store (for example, programs that provide sales support).

primary store controller. The store controller designated to control the store loop under normal conditions.

prime version. The version of a file to which updates are made. The prime version of a file may be maintained on either the Master Store Controller or the File Server. Copies of the prime version, called image versions, are distributed to other store controllers.

printout. Any printed document produced by a point-of-sale terminal printer or by some other printer.

problem determination. The process of determining the source of a problem as being a program component, a machine failure, a change in the environment, a common-carrier link, a user-supplied device, or a user error.

procedure. (1) A set of related control statements that cause one or more programs to be performed. (2) In a programming language, a block, with or without formal parameters, whose execution is invoked by means of a procedure call. (3) A set of instructions that gives a service representative a step-by-step procedure for tracing a symptom to the cause of failure.

processor. In a computer, a functional unit that interprets and executes instructions.

Programmable Store System (PSS). A store system, such as the IBM Store System, that can be programmed to perform user-determined functions.

prompt. A character or word displayed by the operating system to indicate that it is ready to accept input.

protected field. A display field that the terminal operator cannot add to, modify, or erase using the keyboard. Contrast with *input field* and *unprotected field*.

protocol. (1) A set of semantic and syntactic rules that determines the behavior of functional units in achieving communication. (2) In SNA, the meanings of and the sequencing rules for requests and responses used for managing the network, transferring data, and synchronizing the states of network components. (3) A specification for the format and relative timing of information exchanged between communicating parties.

PS. Presentation space.

PSS. Programmable Store System.

PU. Physical unit.

public switched (telephone) network (PSN). A telephone network that provides lines and exchanges to the public. It is operated by the communication common carriers in the USA and Canada, and by the PTT Administrations in other countries.

PVC. Permanent virtual circuit.

Q

queue. A line or list formed by items in a system waiting for service; for example, tasks to be performed or messages to be transmitted in a message routing system.

R

RAM. Random access memory.

RAM disk. Synonym for *virtual drive*.

RAM paging. A technique that allows the computer software to access all of the RAM on adapters that contain 64 KB of RAM, without having to map the entire shared RAM into the computer's memory map. The shared RAM on the adapter is paged into the computer's memory map one 16 KB page at a time.

random access. An access mode in which specific logical records are obtained from or placed into a mass storage file in a nonsequential manner.

random access memory (RAM). A computer's or adapter's volatile storage area into which data may be entered and retrieved in a nonsequential manner.

RCMS. Remote change management server.

read. To acquire or to interpret data from a storage device, from a data medium, or from another source.

read-only memory (ROM). A computer's or adapter's storage area whose contents cannot be modified by the user except under special circumstances.

real storage. The main storage in an virtual storage system. Contrast with *virtual storage (VS)*.

receive. To obtain and store information transmitted from a device.

record. A collection of related items of data, treated as a unit; for example, in stock control, each invoice could constitute one record. A complete set of such records may form a file.

reference diskette. A diskette shipped with the point-of-sale equipment. The diskette contains code and files used for configuration of options and for hardware diagnostic testing.

remote change management server (RCMS). The IBM Store System function that interfaces with the host DSX program for file transmission.

remote program. The program at the other end of a conversation with respect to the reference program. Contrast with *local program*.

remote program load (RPL). A function provided by adapter hardware components and software that enables one computer to load programs and operating systems into the memory of another computer, without requiring the use of a diskette or fixed disk at the receiving computer.

remove. (1) To take an attaching device off a network. (2) To stop an adapter from participating in data passing on a network.

response. The information the network control program sends to the access method, usually in answer to a request received from the access method. (Some responses, however, result from conditions occurring within the network control program, such as accumulation of error statistics.)

retry. In data communication, sending the current block of data a prescribed number of times or until it is entered correctly and accepted.

return code. (1) A value (usually hexadecimal) provided by an adapter or a program to indicate the result of an action, command, or operation. (2) A code used to influence the execution of succeeding instructions. (3) A value established by the programmer to be used to influence subsequent program action. This value can be printed as output or loaded in a register.

ring network. A network configuration in which a series of attaching devices is connected by unidirectional transmission links to form a closed path. A ring of an IBM Token-Ring Network is referred to as a LAN segment or as a token-ring network segment.

ring segment. Any section of a ring that can be isolated (by unplugging connectors) from the rest of the ring. A segment can consist of a single lobe, the cable between access units, or a combination of cables, lobes, and/or access units. See *cable segment, LAN segment*.

ring station. A station that supports the functions necessary for connecting to the LAN and for operating with the token-ring protocols. These include token handling, transferring copied frames from the ring to the using node's storage, maintaining error counters, observing medium access control (MAC) sublayer protocols (for address acquisition, error reporting, or other duties), and (in the full-function native mode) directing frames to the correct data link control (DLC) link station.

ring status. The condition of the ring.

RIPL. Remote IPL.

RMA. Remote Management Agent.

ROM. Read-only memory.

root directory. Highest or base level directory in a hierarchical file system. Subdirectories branch off of the root directory.

router. An attaching device that connects two LAN segments, which use similar or different architectures, at the Reference Model network layer. Contrast with *bridge* and *gateway*.

routing. (1) The assignment of the path by which a message will reach its destination. (2) The forwarding of a message unit along a particular path through a network, as determined by the parameters carried in the message unit, such as the destination network address in a transmission header.

RPL. Remote program load.

S

SAA. Systems Application Architecture.

SABM. Set asynchronous balanced mode.

satellite. (1) A computer that is under the control of another computer and performs subsidiary operations. (2) An offline auxiliary computer. (3) An IBM point-of-sale terminal under the control of a master terminal.

SBCS. Single-byte character set.

scan. To pass an item over or through the scanner so that the encoded information is read. See also *wanding*.

scanner. A device that examines the bar code on merchandise tickets, credit cards, and employee badges and generates analog or digital signals corresponding to the bar code.

scroll. To move all or part of the display image vertically or horizontally to display data that cannot be observed within a single display image. See also *page (2)*.

SDLC. Synchronous Data Link Control.

SDLC link. A data link over which communications are conducted using the Synchronous Data Link Control (SDLC) discipline.

secondary application. A user-written program that is designed to operate with operator intervention.

sector. A 512-byte area of the control unit diskette, the amount of data that is transferred at one time to or from the diskette.

segment. See *cable segment, LAN segment, ring segment*.

serial port. On personal computers, a port used to attach devices such as display devices, letter-quality printers, modems, plotters, and pointing devices such as light pens and mice; it transmits data one bit at a time. Contrast with *parallel port*.

server. (1) A device, program, or code module on a network dedicated to providing a specific service to a network. (2) On a LAN, a data station that provides facilities to other data stations. Examples are a file server, print server, and mail server.

session. (1) A connection between two application programs that allows them to communicate. (2) In SNA, a logical connection between two network addressable units that can be activated, tailored to provide various protocols, and deactivated as requested. (3) The data transport connection resulting from a call or link between two devices. (4) The period of time during which a user of a node can communicate with an interactive system, usually the elapsed time between log on and log off. (5) In network architecture, an association of facilities necessary for establishing, maintaining, and releasing connections for communication between stations.

session group. In System/36 advanced program-to-program communication, a number of sessions managed as a unit.

set asynchronous balanced mode (SABM). In communications, a data link control command used to establish a data link connection with the destination in asynchronous balanced mode. See also *asynchronous balanced mode (ABM).*

shared RAM. Random access memory on an adapter that is shared by the computer in which the adapter is installed.

signal. (1) A time-dependent value attached to a physical phenomenon for conveying data. (2) A variation of a physical quantity, used to convey data.

sign-on. (1) A procedure to be followed at a terminal or workstation to establish a link to a computer. (2) To begin a session at a workstation.

single-byte character set (SBCS). A character set in which each character is represented by a one-byte code. Contrast with double-byte character set.

SNA. Systems Network Architecture.

socket. Synonym for *port (2)*.

source. The origin of any data involved in a data transfer.

SSCP. System services control point.

state. See *conversation state*.

station. (1) A point-of-sale terminal that consists of a processing unit, a keyboard, and a display. It can also have input/output devices, such as a printer, a magnetic stripe reader or cash drawers. (2) A communication device attached to a network. The term used most often in LANs is an *attaching device* or *workstation*. (3) An input or output point of a system that uses telecommunication facilities; for example, one or more systems, computers, terminals, devices, and associated programs at a particular location that can send or receive data over a telecommunication line. See also *attaching device, workstation*.

store controller. A programmable unit in a network used to collect data, to direct inquiries, and to control communication within a point-of-sale system.

store loop. In the IBM Store System, a cable over which data is transmitted between the store controller and the point-of-sale terminals.

Store Loop Adapter. A hardware component used to connect the loop to a store controller.

subarea node. An SNA type 5 node (a host processor), which will control all communications with the store controller.

subdirectory. Any level of file directory lower than the root directory within a hierarchical file system.

subordinate store controller. A store controller that receives copies of all system compound files and may also receive all application compound files.

supervisory (S) frame. A frame in supervisory format used to transfer supervisory control functions. See also *information frame, unnumbered frame.*

SVC. Switched virtual circuit.

switch. On an adapter, a mechanism used to select a value for, enable, or disable a configurable option or feature.

switched line. A telecommunication line in which the connection is established by dialing. Contrast with *nonswitched line*.

switched virtual circuit (SVC). A virtual circuit that is requested by a virtual call. It is released when the virtual circuit is cleared.

symbolic destination name. Variable corresponding to an entry in the side information.

synchronous. (1) Pertaining to two or more processes that depend upon the occurrence of a specific event such as a common timing signal. (2) Occurring with a regular or predictable timing relationship.

Synchronous Data Link Control (SDLC). A discipline conforming to subsets of the Advanced Data Communication Control Procedures (ADCCP) of the American National Standards Institute (ANSI) and High-level Data Link Control (HDLC) of the International Organization for Standardization, for managing synchronous, code-transparent, serial-by-bit information transfer over a link connection. Transmission exchanges may be duplex or half-duplex over switched or nonswitched links. The configuration of the link connection may be point-to-point, multipoint, or loop.

system. In data processing, a collection of people, machines, and methods organized to accomplish a set of specific functions. See also *data processing system* and *operating system*.

system board. In a system unit, the main circuit board that supports a variety of basic system devices, such as a keyboard or a mouse, and provides other basic system functions.

system configuration. A process that specifies the devices and programs that form a particular data processing system.

Systems Application Architecture (SAA). An architecture developed by IBM that consists of a set of selected software interfaces, conventions, and protocols, and that serves as a common framework for application development, portability, and use across different IBM hardware systems.

system services control point (SSCP). In SNA, the focal point within an SNA network for managing the configuration, coordinating network operator and problem determination requests, and providing directory support and other session services for end users of the network. Multiple SSCPs, cooperating as peers, can divide the network into domains of control, with each SSCP having a hierarchical control relationship to the physical units (PUs) and logical units (LUs) within its domain.

Systems Network Architecture (SNA). The description of the logical structure, formats, protocols, and operational sequences for transmitting information units through, and controlling the configuration and operation of, networks. **Note:** The layered structure of SNA allows the ultimate origins and destinations of information, that is, the end users, to be independent of, and unaffected by, the specific SNA network services and facilities used for information exchange.

T

task. A basic unit of work.

TCC Network. A system in which the terminals and controllers communicate using either a store loop, a token-ring or an Ethernet.

telephone twisted pair. One or more twisted pairs of copper wire in the unshielded voice-grade cable commonly used to connect a telephone to its wall jack. Also referred to as “unshielded twisted pair” (UTP).

tender. Money, checks, coupons, or trading stamps used as payment for merchandise or service.

terminal. In data communication, a device, usually equipped with a keyboard and a display, capable of sending and receiving information over a communication channel.

terminal number. A number assigned to a terminal to identify it for addressing purposes.

threshold. (1) A level, point, or value above which something is true or will take place and below which it is not true or will not take place. (2) In IBM bridge programs, a value set for the maximum number of frames that are not forwarded across a bridge due to errors, before a “threshold exceeded” occurrence is counted and indicated to network management programs. (3) An initial value from which a counter is decremented from an initial value. When the counter reaches zero or the threshold value, a decision is made and/or an event occurs.

till. A tray in the cash drawer of the point-of-sale terminal, used to keep the different denominations of bills and coins separated and easily accessible.

token. A sequence of bits passed from one device to another on the token-ring network that signifies permission to transmit over the network. It consists of a starting delimiter, an access control field, and an end delimiter. The frame control field contains a token bit

that indicates to a receiving device that the token is ready to accept information. If a device has data to send along the network, it appends the data to the token. When data is appended, the token then becomes a frame. See *frame*.

token-ring. A network with a ring topology that passes tokens from one attaching device (node) to another. A node that is ready to send can capture a token and insert data for transmission.

token-ring network. (1) A ring network that allows unidirectional data transmission between data stations by a token-passing procedure over one transmission medium so that the transmitted data returns to and is removed by the transmitting station. The IBM Token-Ring Network is a baseband LAN with a star-wired ring topology that passes tokens from network adapter to network adapter. (2) A network that uses a ring topology, in which tokens are passed in a circuit from node to node. A node that is ready to send can capture the token and insert data for transmission. (3) A group of interconnected token-rings.

TP. Transaction program.

trace. (1) A record of the execution of a computer program. It exhibits the sequences in which the instructions were executed. (2) A record of the frames and bytes transmitted on a network.

transaction. (1) The process of recording item sales, processing refunds, recording coupons, handling voids, verifying checks before tendering, and arriving at the amount to be paid by or to a customer. The receiving of payment for merchandise or service is also included in a transaction. (2) In an SNA network, an exchange between two programs that usually involves a specific set of initial input data that causes the execution of a specific task or job. Examples of transactions include the entry of a customer's deposit that results in the updating of the customer's balance, and the transfer of a message to one or more destination points.

transaction program (TP). A program that processes transactions in or through a logical unit (LU) type 6.2 in an SNA network. Application transaction programs are end users in an SNA network; they process transactions for service transaction programs and for other end users. Service transaction programs are IBM-supplied programs that typically provide utility services to application transaction programs.

transmission. The sending of data from one place for reception elsewhere.

transmit. To send information from one place for reception elsewhere.

twisted pair. A transmission medium that consists of two insulated conductors twisted together to reduce noise.

typematic. A keyboard button that will continue to enter characters or repeat its function as long as the button is held down.

U

uninterruptible power supply. A buffer between utility power or other power source and a load that requires uninterrupted, precise power.

universal product code (UPC). An encoded number that can be assigned to and printed on or attached to an article of merchandise for scanning.

universal serial bus. An industry standard that makes it easy to expand PC functionality. The USB is a 12-Mbps serial bus designed to replace almost all low-to-medium speed connections to peripheral devices such as keyboards, mice, and printers.

unnumbered acknowledgment. A data link control (DLC) command used in establishing a link and in answering receipt of logical link control (LLC) frames.

unnumbered (U) frame. A frame in unnumbered format, used to transfer unnumbered control functions. See also *information frame, supervisory frame.*

unprotected field. A display field that the terminal operator can add to, modify, or erase using the keyboard. Contrast with *protected field*.

UPC. Universal product code.

UPS. Uninterruptible power supply.

USB. universal serial bus

user. (1) Category of identification defined for file access protection. (2) A person using a program or system.

user exit. A point in an IBM-supplied program at which a user-written program may be given control.

utility program. (1) A computer program in general support of the processes of a computer; for instance, a diagnostic program, a trace program, a sort program. (2) A program designed to perform an everyday task such as copying data from one storage device to another.

V

variable. (1) A named entity that is used to refer to data and to which values can be assigned. Its attributes remain constant, but it can refer to different values at different times. (2) In computer programming, a character or group of characters that refers to a value and, in the execution of a computer program, corresponds to an address. (3) A quantity that can assume any of a given set of values.

version. A separate IBM-licensed program, based on an existing IBM-licensed program, that usually has significant new code or new function.

VFD. Vacuum fluorescent display.

VFS. virtual file system.

video display. (1) An electronic transaction display that presents visual information to the point-of-sale terminal operator and to the customer. (2) An electronic display screen that presents visual information to the display operator.

virtual circuit. Synonym for *virtual connection*.

virtual connection. (1) A connection between two nodes on the network that is established using the transport layer and provides reliable data between nodes. (2) A logical connection established between two data terminal equipment (DTE) devices. Synonymous with *virtual circuit*.

virtual drive. Computer memory used as if it were a direct access storage device. Synonym for *RAM disk*.

virtual file system (VFS). Within 4690 OS V2, the virtual file system to used to provide support for long file names by creating two virtual drives that support file names greater than eight characters in length.

virtual machine (VM). A functional simulation of a computer and its associated devices. Each virtual machine is controlled by a suitable operating system, for example, a conversational monitor system. VM controls concurrent execution of multiple virtual machines on one host computer.

virtual storage (VS). (1) The storage space that may be regarded as addressable main storage by the user of a computer system in which virtual addresses are mapped into real addresses. The size of virtual storage is limited by the addressing scheme of the computer system and by the amount of auxiliary storage available, not by the actual number of main storage locations. (2) Addressable space that is apparent to the user as the processor storage space, from which the instructions and the data are mapped into the processor storage locations. Contrast with *real storage*.

VM. Virtual machine.

VS. Virtual storage.

W

wand. A commercially available device used to read information encoded on merchandise tickets, credit cards, and employee badges.

wanding. Passing the tip of the wand reader over information encoded on a merchandise ticket, credit card, or employee badge.

wideband. Synonym for *broadband*.

work file. A file that is both created and deleted in the same job.

workstation. (1) An I/O device that allows either transmission of data or the reception of data (or both) from a host system, as needed to perform a job: for example, a display station or printer. (2) A configuration of I/O equipment at which an operator works. (3) A terminal or microcomputer, usually one connected to a mainframe or network, at which a user can perform tasks.

X

XID. Exchange identification.

X.21. In data communication, a recommendation of the CCITT that defines the interface between data terminal equipment (DTE) and public data networks for digital leased and circuit switched synchronous services.

X.21 bis. In data communication, an interim specification of the CCITT that defines the connection of data terminal equipment (DTE) to an X.21 (public data) network using V-series interchange circuits such as those defined by CCITT V.24 and CCITT V.35.

X.25. A CCITT Recommendation that defines the physical level (physical layer), link level (data link layer), and packet level (network layer), of the OSI Reference Model. An X.25 network is an interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) operating in the packet mode, and connected to public data networks by dedicated circuits. X.25 networks use the connection-mode network service.

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